WASHINGTON COUNTY
WISCONSIN

LAND USE PLANNING REPORT
1940
FOREWORD

Washington County has been farmed for more than 100 years. Its settlers, largely of German decent, have been hard working and conservative farmers. The county has witnessed the change from a wheat growing area to one of diversified farming with the main source of income being derived from dairying.

The thought of classifying the land according to its best possible future uses was new to most of the farmers in this county. However, many of the land owners are beginning to realize that there are problems which must be studied and planned for collectively in order to secure the most economical long time use of the soil resources of this county.

This project was begun with an attitude of gaining a widespread expression of opinions from rural folks and others concerning possible adjustments in land use of the various areas into which the county was divided. This information was carefully evaluated and from it were gained the recommendations herein presented.

This report is in no sense a final expression of the best possible use of land in Washington County. However, it is a step in the direction toward improving the agricultural program of the County because it represents the opinions of nearly a hundred leading farmers, 4-H leaders, representatives of state and federal action agencies, and other rural minded men and women.

The Chairman and Secretary of the County Land Use Planning Committee at this time wish to express their sincere appreciation for the loyal cooperation they have received from both the County and the Community Committees. Many of the Community Committee meetings were held under unfavorable conditions, such as very cold and stormy weather or on days when other work was urgent. In no case did any committee member waiver in tendering his or her best to the cause of the land use planning project. Their enthusiasm was remarkable. And to them goes much credit for this report.

Guido Schruder
Chairman

E. E. Skalsky
Secretary
<table>
<thead>
<tr>
<th>TABLE OF CONTENTS</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Map Showing Location of Washington County</td>
<td></td>
</tr>
<tr>
<td>Foreword</td>
<td>1</td>
</tr>
<tr>
<td>I. Introduction</td>
<td>2</td>
</tr>
<tr>
<td>II. County Committee Personnel</td>
<td>3</td>
</tr>
<tr>
<td>III. Community Committee Personnel</td>
<td>4</td>
</tr>
<tr>
<td>IV. Map Showing the Divisions of the County</td>
<td>6</td>
</tr>
<tr>
<td>V. Background Information</td>
<td>7</td>
</tr>
<tr>
<td>VI. Community Committee Meetings</td>
<td>9</td>
</tr>
<tr>
<td>VII. Trends in Land Use in Washington County</td>
<td>14</td>
</tr>
<tr>
<td>VIII. Description of the County</td>
<td>16</td>
</tr>
<tr>
<td>IX. Present Land Use Areas</td>
<td>19</td>
</tr>
<tr>
<td>1. The Heavy Soils</td>
<td>19</td>
</tr>
<tr>
<td>2. The Sandy Soils</td>
<td>20</td>
</tr>
<tr>
<td>3. The Peat Soils</td>
<td>21</td>
</tr>
<tr>
<td>X. Land Use Classification</td>
<td>21</td>
</tr>
<tr>
<td>XI. Map Showing Land Use Classification</td>
<td>22</td>
</tr>
<tr>
<td>XII. Land Use Areas and Recommendations</td>
<td>25</td>
</tr>
<tr>
<td>1. Area &quot;A&quot; Land</td>
<td>25</td>
</tr>
<tr>
<td>2. Area &quot;B&quot; Land</td>
<td>26</td>
</tr>
<tr>
<td>3. Area &quot;C&quot; Land</td>
<td>26</td>
</tr>
<tr>
<td>XIII. General County Recommendations</td>
<td>34</td>
</tr>
<tr>
<td>1. Farm Purchase for Tenants</td>
<td>34</td>
</tr>
<tr>
<td>2. Farm Tenancy</td>
<td>34</td>
</tr>
<tr>
<td>3. Cedar Lake Resort Area</td>
<td>35</td>
</tr>
<tr>
<td>4. Living Snow Fences</td>
<td>35</td>
</tr>
<tr>
<td>5. Farm Woodlot Management</td>
<td>36</td>
</tr>
<tr>
<td>6. Wild Life Feeding</td>
<td>36</td>
</tr>
<tr>
<td>7. Farm Indebtedness</td>
<td>37</td>
</tr>
<tr>
<td>8. Personal Property Load</td>
<td>37</td>
</tr>
<tr>
<td>9. Interest Rates</td>
<td>38</td>
</tr>
<tr>
<td>10. Weed Control</td>
<td>38</td>
</tr>
<tr>
<td>11. The European Corn Borer</td>
<td>39</td>
</tr>
<tr>
<td>12. Cash Crops</td>
<td>40</td>
</tr>
<tr>
<td>13. Certified and Registered Seed Grains</td>
<td>41</td>
</tr>
<tr>
<td>14. Drainage</td>
<td>41</td>
</tr>
<tr>
<td>15. Soil Erosion</td>
<td>42</td>
</tr>
<tr>
<td>16. Soil Management</td>
<td>43</td>
</tr>
<tr>
<td>17. Dairy Improvement</td>
<td>44</td>
</tr>
<tr>
<td>18. Livestock Recommendation</td>
<td>45</td>
</tr>
<tr>
<td>19. Beekeeping</td>
<td>45</td>
</tr>
<tr>
<td>20. Bird Conservation</td>
<td>46</td>
</tr>
<tr>
<td>21. Rural Education</td>
<td>47</td>
</tr>
<tr>
<td>22. American Youth Hostel</td>
<td>47</td>
</tr>
<tr>
<td>23. 4-H Club Organization</td>
<td>48</td>
</tr>
<tr>
<td>XIV. Summary Sheet</td>
<td></td>
</tr>
<tr>
<td>XV. Summary of Recommendations</td>
<td></td>
</tr>
<tr>
<td>XVI. Statistical Data and Graphs</td>
<td></td>
</tr>
</tbody>
</table>
INTRODUCTION

The task of carrying out a proposed project of Land Use Planning in Washington County was undertaken as a direct responsibility by the County Agricultural Committee of the County. The Committee directed that the County Agricultural Agent serve as the secretary of the County and Community Land Use Planning Committees. He was relieved by an assistant County Agricultural Agent from most of his regular duties which enabled him to give much of his time to the work of this project.

SPECIALISTS DIRECT THE STUDY

To start the work of Land Use Planning in Washington County, the Chairman of the County Board who is also the Chairman of the County Agricultural Committee, called a meeting of the Committee to consider plans for carrying out this project. Mr. Walter Rowlands, State Extension Leader of Land Use Planning, was invited to meet with the Committee and to explain the purposes of the land use planning project and the organization necessary for carrying on the work.

ORGANIZATION

The Agricultural Committee assisted by Mr. Ray Pallett, Extension Supervisor, appointed the County Committee members. Care was taken to include in its membership representative farmers from all areas of the county as well as representatives of the various action agencies. A majority of the committee was made up of people whose livelihood depends directly upon the soil.

PROCEDURE

For the purpose of the Land Use Study it was decided to divide the County into five "Communities." Each Community would consist of two or three townships. It was felt that by limiting the size of these areas, Community Committee members would be more fully acquainted with the region each community represented, and hence with the problems of each of these areas. Thus a more full and wise discussion of Land Use Study problems would be forthcoming.
THE COUNTY COMMITTEE

The membership of the County Committee is as follows:

<table>
<thead>
<tr>
<th>Name and Address</th>
<th>Representing</th>
<th>Occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guido Schroeder, West Bend</td>
<td>Chairman, County Board</td>
<td>Farmer</td>
</tr>
<tr>
<td>W.K. Carter, West Bend</td>
<td>Farm Security Adm.</td>
<td>Dist. Supervisor</td>
</tr>
<tr>
<td>Raymond Lepien, Hartford</td>
<td>Soil Conservation Serv.</td>
<td>Farmer</td>
</tr>
<tr>
<td>Paul Horlamus, West Bend</td>
<td>County Park Board</td>
<td>Farmer</td>
</tr>
<tr>
<td>Dr. C.M. Herman, Allentown</td>
<td>County Park Board</td>
<td>Doctor</td>
</tr>
<tr>
<td>E. C. Ziegler, West Bend</td>
<td>County Park Board</td>
<td>Industrialist</td>
</tr>
<tr>
<td>Dr. H. F. Weber, Newburg</td>
<td>County Park Board</td>
<td>Doctor</td>
</tr>
<tr>
<td>Walter Boettcher, Richfield</td>
<td>County Park Board</td>
<td>Plumber</td>
</tr>
<tr>
<td>George Sell, Hartford</td>
<td>Co. Highway Dept.</td>
<td>Retired</td>
</tr>
<tr>
<td>L. B. Cummings, Hartford</td>
<td>Soil Conservation Serv.</td>
<td>Dist. Supervisor</td>
</tr>
<tr>
<td>A. E. Reif, West Bend</td>
<td>Conservation Commission</td>
<td>Game Warden</td>
</tr>
<tr>
<td>George C. Nehm, Slinger</td>
<td>County Agr'l Committee</td>
<td>Farmer</td>
</tr>
<tr>
<td>John C. Mayer, Kohlsville</td>
<td>County Agr'l Committee</td>
<td>Farmer</td>
</tr>
<tr>
<td>Phillip Burg, Colgate</td>
<td>County Agr'l Committee</td>
<td>Farmer</td>
</tr>
<tr>
<td>M. T. Buckley, West Bend</td>
<td>Rural Education</td>
<td>Co. Supt. Schools</td>
</tr>
<tr>
<td>Armand Langenbach, West Bend</td>
<td>City Planning Board</td>
<td>Conservationist</td>
</tr>
<tr>
<td>Henry Schowalter, West Bend</td>
<td>Community Interests</td>
<td>Attorney</td>
</tr>
<tr>
<td>Bentley Courtenay, West Bend</td>
<td>Lake Resort Area</td>
<td>Attorney</td>
</tr>
<tr>
<td>Arthur Kuehlthau, West Bend</td>
<td>Press</td>
<td>Newspaperman</td>
</tr>
<tr>
<td>Ed. Held, Hartford</td>
<td>Farming</td>
<td>Farmer</td>
</tr>
<tr>
<td>Wm. H. Grulke, West Bend</td>
<td>Farming</td>
<td>Farmer</td>
</tr>
<tr>
<td>Helena Muohmiefer, West Bend</td>
<td>Extension</td>
<td>Home Agent</td>
</tr>
<tr>
<td>Edith Heidner, West Bend</td>
<td>Secondary Schools</td>
<td>Teacher</td>
</tr>
<tr>
<td>Mrs. Ralph Petri, Kewaskum</td>
<td>Homemaker</td>
<td>Merchant</td>
</tr>
<tr>
<td>Mrs. Ed. Held, Hartford</td>
<td>Homemaker</td>
<td>Farmer's Wife</td>
</tr>
<tr>
<td>Mrs. Wm. Ruhn, Rockfield</td>
<td>Homemaker</td>
<td>Farmer's Wife</td>
</tr>
<tr>
<td>Mrs. Adam Peterman, Newburg</td>
<td>Homemaker</td>
<td>Reverend's Wife</td>
</tr>
<tr>
<td>Mrs. Wm. H. Grulke, West Bend</td>
<td>Homemaker</td>
<td>Farmer's Wife</td>
</tr>
<tr>
<td>Mrs. Egbert Muth, West Bend</td>
<td>Homemaker</td>
<td>Homemaker</td>
</tr>
<tr>
<td>Mrs. H. B. Esselman, West Bend</td>
<td>Homemaker</td>
<td>Farmer's Wife</td>
</tr>
<tr>
<td>Leslie German, West Bend</td>
<td>Junior Farmer</td>
<td>Farmer</td>
</tr>
<tr>
<td>Martha Kopp, West Bend</td>
<td>4-H Clubs</td>
<td>Jr. Homemaker</td>
</tr>
<tr>
<td>E. E. Skaliskey, West Bend</td>
<td>Secretary</td>
<td>Co.Agr'l Agent</td>
</tr>
</tbody>
</table>
FIRST MEETING OF THE COUNTY COMMITTEE

The first meeting of the County Committee was held in the Court House, West Bend, Wisconsin, on December 21, 1939. Mr. Walter Rowlands, State Extension Leader of Land Use Planning, Mr. Ray Pallett, District Supervisor of Agricultural Extension work, and Mr. L. G. Sorren, State Representative, Bureau of Agricultural Economics, were present to assist with the organization work. Mr. Guido Schroeder, Chairman of the Washington County Board, served as chairman of the meeting. Mr. Rowlands outlined the purposes of County Land Use Planning. Mr. Sorren gave further land use planning suggestions. The County Committee approved the division of the county into 5 communities and the appointment of the committee members of these 5 communities. The accompanying map shows the 5 divisions into which the county was divided for the purpose of the Land Use Planning work.

The membership of the 5 Community Committees by towns commonly called townships follows -

COMMUNITY ORGANIZATIONS

I. West Bend and Barton Townships -

Guido Schroeder, R#5, West Bend, Wisconsin
Paul Horlans, R#5, West Bend, Wisconsin
Bentley Courtenay, R#5, West Bend, Wisconsin
Walter Kletti, R#5, West Bend, Wisconsin
John VanBeek, R#2, West Bend, Wisconsin
Paul Cypher, R#3, West Bend, Wisconsin
Albert Bandle, West Bend, Wisconsin
Edwin C. Roecker, R#3, West Bend, Wisconsin

II. Kewaskum, Farmington and Trenton Townships -

Henry Muckerheide, R#3, West Bend, Wisconsin
Conrad Bier, R#2, Kewaskum, Wisconsin
Raymond Schaefer, R#2, Kewaskum, Wisconsin
Louis Opgenorth, R#3, Kewaskum, Wisconsin
Ed. J. Campbell, R#3, Kewaskum, Wisconsin
Harvey Dettmann, R#1, Random Lake, Wisconsin
Wm. H. Gruhle, R#2, West Bend, Wisconsin
Ed. Pickler, R#2, Kewaskum, Wisconsin
Leslie Gerner, R#2, West Bend, Wisconsin
Merton Murray, R#2, West Bend, Wisconsin
Henry Schlegem, R#2, West Bend, Wisconsin
Joe Kowanda, R#1, West Bend, Wisconsin
Jos. Klinka, R#1, West Bend, Wisconsin
John Bruendl, R#2, West Bend, Wisconsin
WASHINGTON COUNTY

WAYNE

KAWSKUM

FARMINGTON

BARTON

COMMUNITY I.

COMMUNITY II

TRENTON

COMMUNITY III

COMMUNITY IV

COMMUNITY V

HARTFORD

POLK

JACKSON

ERIN

RICHFIELD

GERMANTOWN
III. Wayne, Addison and Hartford Townships -

John C. Mayer, R#3, West Bend, Wisconsin
Hubert Klein, R#2, Kewaskum, Wisconsin
Fred Pamperin, R#3, West Bend, Wisconsin
Theo. Ritger, R#1, Allenton, Wisconsin
Alois Neuberg, R#1, Allenton, Wisconsin
Jacob A. Wolf, Jr. R#5, West Bend, Wisconsin
Geo. E. Schmidt, R#3, West Bend, Wisconsin
Oscar Moritz, R#3, West Bend, Wisconsin
Raymond Lepien, R#1, Hartford, Wisconsin
Arthur Lichtenwalner, Hartford, Wisconsin
Frank Zuern, R#2, Hartford, Wisconsin
Herbert Lepien, R#3, Hartford, Wisconsin
George Rettler, R#2, Hartford, Wisconsin

IV. Germantown, Polk and Jackson Townships -

Paul W. Bartelt, R#1, Jackson, Wisconsin
Ernest Retzlaff, R#2, Cedarburg, Wisconsin
Paul Liesener, Jackson, Wisconsin
John Prochnow, R#1, Rockfield, Wisconsin
Ed. Gettelman, Germantown, Wisconsin
Jacob Leicht, Germantown, Wisconsin
Jacob E. Bast, R#1, Rockfield, Wisconsin
Arthur Schaetzle, Germantown, Wisconsin
Wm. Kuhn, Rockfield, Wisconsin
George C. Nehm, R#1, Slinger, Wisconsin
Christ. Hoffmann, R#1, Slinger, Wisconsin
Fred Binner, R#4, West Bend, Wisconsin
Everett Schubert, Slinger, Wisconsin

V. Erin and Richfield Townships -

Phillip Burg, R#1, Colgate, Wisconsin
A. J. Cleary, R#1, Hartford, Wisconsin
Thomas J. Manning, R#1, Hartford, Wisconsin
Albert Lofye, R#1, Hartford, Wisconsin
George Roebel, Hubertus, Wisconsin
John Youngbauer, Colgate, Wisconsin
Elmer Beising, R#1, Richfield, Wisconsin
Walter Boettcher, Richfield, Wisconsin
Robert Laubenheimer, Richfield, Wisconsin

The division of the County into the 5 areas called communities indicated above was based on several factors, chiefly among which are - (1) present land use; (2) marketing practices; (3) soil topography and (4) soil type. No one factor was the sole guide which determined the inclusion of a given township in any one of the communities.
COMMUNITY COMMITTEE PERSONNEL

The Community Committees were made up of able successful farmers of the township they represented. Their schooling ranged from the middle grades of the rural school to men who were graduates of the four year course in agriculture. Several were short course graduates. One was an attorney and lives permanently in the Cedar Lake Resort area. His contributions were of special value because of his knowledge of the resort problems of Cedar Lake which is said to be the most concentrated resort area in Wisconsin.

In the selection of the County or Community Committee members, no reference was made of the political affiliation, nationality, religion, financial standing, social significance, or length of residence within the community. All members were residents of the county. All were selected on their ability to contribute to the work of land use planning for Washington County.

SOURCES OF BACKGROUND MATERIAL

Statistical data was obtained from a number of sources in order to present a true picture of the agricultural situation in Washington County which might serve as a guide in making recommendations.

The local AAA Soil Conservation office furnished valuable information on productivity, farm tenancy, acreages of various crops for 1939 and aerial photographs.

The District Farm Security Administration, the Juneau Production Credit Association, and the National Farm Loan Association all furnished information regarding their respective clients in Washington County. This information pertained to the location of their clients, the amount of their loans, and the size of the farms involved.

The County Welfare office presented data by townships on the relief situation for this county.

The County Treasurer's office gave information on the extent of tax delinquency in the county.

The Wisconsin State Planning Board at Madison supplied a generalized soil map and other data of Washington County.

Valuable agricultural data was obtained from Bulletin No.186, "Wisconsin Agriculture" published by the Wisconsin Crop and Livestock Reporting Service at Madison, Wisconsin.

Information on crop and livestock trends for 20 years by townships and also a four-year average of crop acreages and livestock numbers were furnished by the Bureau of Agricultural Economics at Madison.
The County Superintendent of Schools supplied information as to the number of rural schools and enrollments. Miss Edith Heidner of the West Bend High School prepared a good historical account of Washington County.

COUNTY COMMITTEE MEETINGS

The County Committee met for organization purposes on December 21, 1939. This committee did not meet again until May 14th of the following year. At this time a preliminary report of the recommendations of the Community Committee were presented for consideration.

COMMUNITY COMMITTEE MEETINGS

First Community Committee Meeting –

At the first Community Committee meeting the secretary explained the purpose of the Land Use Planning project and the contributions expected of the committee. He next presented the statistical information referred to above.

Following the presentation of this background material a round table discussion of it was conducted. This was to ascertain if each member of the community clearly understood the work he was about to do.

At the first meeting of the Community Committee the members were given a copy of a questionnaire consisting of about 100 questions which was prepared by the secretary with the assistance of the County Committee. This questionnaire was prepared solely for the purpose of helping Community Committee members in analyzing existing problems, and in determining if definite land use problems existed. Community Committee members were instructed to review the questions contained therein and to write out such answers as they wished. The questionnaire was to be discussed at the second meeting.

Second Community Committee Meeting –

The questions contained in the questionnaire required all of the time allotted for the second meeting. In three communities the committee remained in session for more than five hours in order to give consideration to the questions discussed.

Third Community Committee Meeting –

At the third and final meeting of the Community Committee the land of the communities concerned was classified. This was done according to the instructions contained in the pamphlet "Out-Line for County Land Use Planning in Wisconsin."
For the purpose of mapping and classifying the land, the township was taken as the unit and meetings were held in each township. The township mapping meetings were attended by the assessor who in some townships was not a member of the community committee.

At this meeting each Community Committee member was furnished a plat map giving the size, location and ownership of each tract of land within the township. Each member was also given a copy of the directions for classifying the land as set forth in the instructions. These directions were thoroughly discussed before the work of classifying the land was begun.

Starting with Section No. 1 of each township the secretary prepared a colored map of the classification assigned by the committee to each 40-acre tract.

The major use of the "forty" was used to determine the classification to be assigned to that particular tract of land. For example — if a given forty acres had 15 acres of woods and unplowed pasture land and 25 acres of recognized crop land, the entire forty was classified as crop land. It was felt that the law of averages would provide a proper distribution of the land.

Each township was mapped independently. When these were compiled into a county map, few, if any, discrepancies from township to township were found. In only two instances were community members asked to reconsider their classification. In one instance only was the classification slightly modified.

The Community Committee meetings were informal round table discussions. Each member of the committee was on a par with every other member which permitted individual thinking. All were accorded equal freedom of expression. The secretary recorded only those opinions and suggestions approved by a majority of the committee.

It is the personal opinion of the secretary in viewing the land classification of the thirteen separate township committees, that, perhaps, some differences of standards were present in the minds of the committees as the land was classified. However, for the purposes of this report all of the land except area "E" land within the county is to be regarded as arable. Hence, any differences of opinion concerning a 40-acre tract in question will not materially alter the contents of this report.

The results of the Community Committee meetings were summarized to make up the county narrative report. These together with the map were presented to the County Committee on May 14, 1940, for correlation of the recommendations of the five separate communities and for the county as a whole. Mr. L. G. Sorden assisted in directing this part of the report.
TRENDS IN LAND USE IN WASHINGTON COUNTY

by

Edith Heidner
Teacher of American History
West Bend High School

The frontier approached the lands now included in Washington County during the last half of the 1830's. Fortunately, in 1835-37 during the feverish speculation immediately preceding the panic of 1837, only the lands along the Milwaukee River in the townships of Trenton and Farmington were bought by absentee speculators. When the actual settlers came in 1839 they could buy land directly from the government at the minimum price of $1.25 per acre. Settlers located first in southeastern Germantown and proceeded north, northwest, and west along the trails. The Yankees preceded other nationalities by very little, but they sought out the water power and town sites. Yankees, Germans, Irish and a few French, Swiss, Scandinavians and British bought the land which best measured up to their own standards and experience. Good hardwood forests and limestone soils indicated productive land according to their homeland standards. The rolling hills and beautiful lakes appealed strongly to both the German and Irish immigrants, reminding them of their native lands.

Proximity to the Lake Michigan markets tended to hold the cautious Germans in the south central and east townships of the county; the abundance of pure water to be had without the digging of expensive wells, the cheapness of the government land, the building and fencing material to be had for the labor of preparing it, all rendered possible the making of a farmstead with a comparatively small investment of capital. It appealed to those pioneers, native and foreign, who had little money but were willing to work hard and by thrift to improve their economic position. By 1850 all of the desirable land in the county had been purchased from the government.

In 1850, in the town of Hartford, the adult male settlers were largely of native American descent of English origin commonly called "Yankee". They were also a strong element in Farmington, Kewaskum, Trenton, and West Bend townships. The Irish far outnumbered all other nationalities in Erin and were prominent in Hartford, Farmington, Richfield, Trenton and Wayne. The Germans over-whelmingly out-numbered all others in Germantown, Jackson, Polk, Richfield, Addison and Wayne, and were more numerous than any other nationality in Farmington and West Bend.

By 1860, the population of the county had reached 23,622 inhabitants, the Germans had become more numerous than all other nationalities in all townships except in Erin which was over-whelmingly Irish, and Hartford — predominantly Yankee, and the trend since has not changed appreciably.

The dense, hardwood forests which covered the entire county made land clearing a slow process. Due to this fact and also to the
relatively small amount of capital of most of the settlers, the size of the average farm was about eighty acres. Wheat was the most profitable cash crop and every farmer aimed to raise as much of it as possible because it helped him to pay for his improvements, livestock and machinery. Wheat grew best on the newly cleared land, therefore its production increased in the county as the cleared acreage increased. However a little of everything else was raised. Rye, corn, buckwheat and maple sugar were important items of food of the early pioneers. A few pigs and a cow or two were kept by each family. Oats was produced, and also a considerable acreage of barley for it found a good market in the local breweries.

Soon after the first settlers came to the county, dams were built to utilize the many excellent water power sites. Saw mills and grist mills were erected. In 1860, eighteen saw mills with a combined capital of $46,100. employed forty-five hands and produced 4,228,740 feet of lumber. Oak, basswood, cherry and butternut logs were the principal ones used.

In 1860, ten flour mills used 470,000 bushels of wheat worth $415,700. to produce 93,133 barrels of flour worth $1490,315. Rye was also used for flour. The coarse grains such as oats, barley, corn, etc., were ground for stock feed.

In the same year eight breweries used 15,300 bushels of barley and malt to manufacture 6,550 barrels of beer. These local industries used home grown raw material and sold most of the products in the local market.

Between 1855 and 1886 the marketing facilities of the area were greatly extended by the building of three railroads across the county from Milwaukee to points west, north, and northwest.

Specialization in wheat and barley production increased here as it lagged in other Wisconsin counties. In 1889 the county ranked third in the state in wheat raising, and second in the per capita production of barley. But an adjustment was taking place on these acres that had been cleared earliest and used longest. In 1880 Washington County was one of five out of twenty-three older counties of the state that still devoted more acreage to market crops such as wheat, rye and barley, than to feed crops such as oats, corn and hay. By 1889 however, the proportion in acreage between the two was reversed in favor of feed crops.

There were several influences that brought about this shift to more diversified farming, among them were diminishing yields on the acres that had been farmed longest and the increasing ravages of the chinch bug. The farmer cast about for some cash crops that would take the place of wheat.

As early as 1855, the Washington County Agricultural Society was organized. It was reorganized in 1858 with the first fair or show at the Court House Square in West Bend in that year. The first premium lists show that the major interest soon turned to livestock.
The first pedigree livestock on the records were Norman draft horses listed in 1877 and Durham and Devon cattle in 1879.

Factory cheese-making was introduced into the county in Farmington in 1871 with the manufacturing of full cream cheddar cheese. Other cheese factories were quickly established. In an attempt to make the supply of milk more nearly equal to the capacity of the neighboring cheese factory, a farmer from the town of West Bend introduced the black and white cows which, from his experience in his native Germany, he knew to be producers of large quantities of milk. In 1883, he and his son, C. A. Schroeder, bought two pedigreed Holstein heifers. In order to prove their merit, the son kept separate the milk from each of the two cows, weighed it, skimmed off the cream and churned it. He found that twenty-eight pounds of milk from one cow produced one pound of butter while it took only twenty-one pounds of milk from the other to produce a like amount. The latter cow was kept as the foundation for his herd. The testing and keeping of individual records of the volume of milk and amount of butterfat produced for each individual cow is the foundation for the scientific breeding of Holstein as well as other breeds of cattle. Breeding for milk production was thus introduced.

A year round cash income such as is now obtained from milk is important to the prosperity of the farmer. Cheese factories were regularly closed during the winter months because of the lack of an adequate supply of milk. Agricultural Scientists and progressive farmers at about this time advocated the use of preserved green feed as a means of continuing the milk flow during the winter months. A silo, probably the first in the county was built in 1885 in the town of Jackson. It was square, the lower portion built of field stone—the upper part of wood. Silos were adopted rather slowly. The drive to conserve food in 1917 and 1918 during the World War stimulated interest in them. In 1919 the number of silos increased by 203 making 1,717 in all. A survey of the county today shows an average of slightly more than one silo per farm.

Not the least in importance among the elements to success in dairy farming in the county were the already mentioned German farmers. In addition to their patient devotion to the principles of good tillage, they generally cared well for their stock and were willing to milk twice a day, feed and tend cows, and deliver milk at the factory.

During the decade between 1910 and 1920 important influences shaped our agricultural development. It is believed that the electric power line constructed in the year 1919 from the city of West Bend, west and northwest, through the townships of West Bend, Barton, Addison, and Wayne was the first completely rural electric power line built in the United States. Macadam roads and state trunk highways were built; automobiles and trucks increased in number. In 1920, Washington County built its first few miles of concrete highway.

The rapid and all-weather transportation facilities helped to solve one of the fundamental problems of the county—the adequate handling of its most valuable product—milk. It was essential in
effectively developing every important commercial outlet for milk, whether to the local creameries and cheese factories and condenseries, or as fluid milk to the local industrial population and to the great Milwaukee-Chicago metropolitan area.

Dating from approximately 1915, Washington County has been a leader in registered breeding stock. It has developed a nation-wide and even international market for pedigreed cattle. The first hard testing association was organized in 1917, and at the present time there are four in the county. The original purpose of the testing associations to increase milk and butterfat production and develop better parent stock has been well carried out.

Influences to arouse and lead farmers to better agricultural practices have not been wanting. The Washington County Agricultural Society, already mentioned, continued to exercise an important influence through the 1920's. Under the leadership of the County Superintendent of Schools the Boys' Agricultural Club made its first exhibits at the County Fair in 1901. The impetus of the World War and the demand for increased food production brought about the employment of the first County Agent in 1919; and the first Emergency Home Demonstration Agent for work among the older girls and women. However, this last office was later discontinued until revived in 1936 with a County Home Agent. The 4-H work was established about in 1919 as part of the same movement and absorbed the previously mentioned Boys' Agricultural Club. There are now twenty-four 4-H clubs in the county. A County Fruit Growers' Association was established in 1931 and there are eleven communities that do active spraying of their fruit orchards.

Land Use for recreational purposes in the Kettle Moraine region of the county dates back to its earliest history. Its wooded ridges and slopes, many cleared-watered, spring-fed lakes abounding in game, water-fowl, and fish were prized by the Indians and early white settlers. Commercially, land use for recreational purposes probably dates back to the first subdivision made in 1834 and known as Cedar Lake Park. Camps, hotels and picnic grounds, cottages, steadily increased in number and importance until the shores of most of the lakes have been occupied. Local residents and organizations have cooperated with government agencies to foster sports. Fish stocking by the state began in Cedar Lake as early as 1866. In 1914, the office of Game Warden was established in the county.

The Washington County Fish and Game Protective Association was established in 1922 and there are also five active local conservation clubs. The first Wild Life Refuge in the county was established at Lake Amy Belle in 1929. At present there are five within the county boundaries. Pheasants were first released in large numbers in this area about 1930.

In 1940, a lease of several years duration was obtained on 2,200 acres of land in the Theresa marsh located in the Rock River Valley in the township of Wayne which will be used as a public shooting grounds. It will be stocked by the Wisconsin Conservation Department and opened to the public for hunting in the fall of 1940.
In addition to the already mentioned conservation activities yachting and other water sports, as well as the natural scenic beauty attracted local residents and thousands of people from Milwaukee, Chicago and more distant cities. The Cedar Lake Yacht Club was organized in 1898. With the purchasing of land for golf courses by the Hartford Golf Club in 1927 and the West Bend Country Club in 1928, golf was added to these sports.

At no time in the history of Washington County was its prosperity dependent exclusively upon one source of income. Diversified farming has always been practiced with incomes from poultry, hogs, fruit, dairying, livestock, and cash crops.

The industries of the county are numerous and varied. With the establishment of automobile manufacturing in Hartford in 1905, that city became an important industrial center of the county. Before 1910, the industries of West Bend were largely those that used local raw materials or produced for a local agricultural market. Since that date more industries have been established which are not so dependent upon the vicinity for materials or market. Agricultural implements, pocket books, aluminum ware, cheese boxes, wagons, shoes, woolen blankets, automobile accessories, washing machines, fibre conduit line materials, stainless steel, outboard motors, canned vegetable and milk condensery products, have a national or international market. The industries draw their labor supply from the farm and village populations as well as from the cities of the county and are one of its foremost sources of revenue and stability.

In order to insure the public safety, welfare, and convenience in the future expansion of these many and varied land uses, the County Board, in 1939, created a Washington County Park Commission whose duty is to make plans and recommendations for the future development of the county.
DESCRIPTION OF COUNTY

Washington County is one of a group of seven southeastern Wisconsin counties. It is approximately fifty miles north of the state line and 12 to 15 miles west of the border of Lake Michigan. It is classified as a rural county with a population in 1935 of 26,551 people. The largest urban center is West Bend, the County Seat, which has a population of 4,760 people. West Bend, which is practically in the center of the county, is 32 miles from Milwaukee, and is located on Federal and State Highways 45 and 55. The second city in size is Hartford, population 3,754, which is located near the western boundary of the county. In addition there are three villages, namely; Kewaskum, Barton and Slinger with a population of about 800 to 1000 each. Also six smaller villages or unincorporated settlements, namely; Allenton, Fillmore, Newburg, Richfield, Jackson, and Germantown, with populations of less than 400 people per settlement. Of the total population 57.2 percent of the people are distinctly rural and directly dependent upon the soil for a livelihood. 32.1 percent live in the two cities within the county and 10.7 percent live in small villages or unincorporated settlements.

The County is served by one Federal and one Federal-State Highway running in a northerly and southerly direction. Two State Trunk Highways traverse the county in easterly and westerly directions. Three railroads provide adequate rail transportation. These transportation facilities provide convenient outlets to the Milwaukee and Chicago markets for Washington County farm produce.

Washington County is one of the smaller counties in the state, consisting of thirteen townships. It is 18 miles wide and 24 miles long. The area included is 432 square miles or 276,480 acres.

The County has an elevation varying from 900 to 1050 feet with the highest point being Hely Hill which is 1361 feet above sea level. The rainfall is approximately 32 inches per year. The length of the growing season ranges from 155 days to 165 days. The average date of the first killing frost in autumn is usually shortly after October 1st. In the spring time the average date of the last killing frost has been about the first week in May.

The soils of Washington County, like the soil of most of the eastern Wisconsin counties, were formed principally by three different methods. These are - (1) glacial deposits; (2) alluvial or stream deposits and (3) lacustrine or lake-laid soil. Soils formed by the latter method are found only along the eastern border of the county. Glacial deposits account for the greater percent of the soils.

Washington County was traversed by two distinct glaciers, one known as the Lake Michigan lobe, and the other as the Green Bay lobe. Where these two glaciers came in contact, they formed a pronounced moraine which is known as the "Kettle Moraine" and which traverses the county almost diagonally from the northeast corner to the southwest corner. This area is best described as hilly,
while the balance of the county may be-classed as undulating to rolling with the exception of the two southeastern townships, namely; Jackson and Germantown which are quite level.

More than 90 percent of Washington County is underlaid with Niagara limestone. Along the western border, covering an area of not to exceed two townships, the surface rock is Cincinnati shale. The weathering of these and other native rocks produced the original soil of these areas. During the event of the glacier much of the underlying rock was ground up and mixed with the original soil produced by the weathering agencies. This produced a soil of average fertility which in many instances has become deficient in phosphate. Since the Niagara limestone is the most extensive formation, it has contributed most to the formation of our soils. This explains in part at least, why the soils of the eastern two-thirds of the county are usually not acid and need little if any lime for crop growth. The Cincinnati shale found along the western borderline of the county has left pronounced acid conditions in the soil and farmers find it advantageous to apply lime.

In the Wisconsin geological and natural history survey the soils of the county have been classified into eleven soil series. This classification is based very largely on the origin, texture, topography, chemical composition, and native vegetation. The predominant type of farming is diversified dairy farming with such cash crops as barley, potatoes, peas, sweet corn, carrots, and tomatoes. 60 percent of the farm income is derived from dairy cattle. Poultry and hog raising contribute about 10 percent each to our farm income. The balance is derived from the sale of cash crops.

Sources of Gross Farm Income, Washington County, 1936.

![Diagram showing income distribution]

From Bulletin No.188 Wisconsin Agricultural Statistics.
Washington County has approximately 2,850 farms whose average size is 94.6 acres with an average value of $87.62 per acre or $8,286.00 per farm. Of the total land in the county, excluding the lake region, 96.2% is in farms of which 56.3% is under cultivation. The remaining land is in pasture, wooded or open, and in farm building sites. About 12.1% of the land is wooded pasture and is covered with a fair stand of second growth timber. In addition 2.5% of the land is pastured woodland.

PRESENT LAND USE AREAS

Washington County is a small, compact, and uniform area with little natural obstruction to wind or to the elements. This makes possible a relatively uniform climate.

The topography of the county does affect its agriculture to some extent. The dark soils, mostly of the Clyde clay loam series in the southeastern part of the county which we have grouped for the purpose of this study into one community, are suited for such crops as cabbage, tomatoes and red beets. These cash crops are not so well adapted to the soil types and soil topography of the remaining communities into which Washington County is divided.

We have no forests, public recreational lands, or tax reverted areas in the county.

The principal soils with a brief description of them follows -

I. THE HEAVY SOILS

(1) The Miami Soils:

This series includes light colored, upland timbered soils where the surface of the soil is gray or light brown, and the subsoil is largely clay loam containing some coarse gravelly material.

The Miami series is divided into six soil types based largely upon the texture of the soil.

   a. Miami clay loam
   b. Miami clay loam - light phase
   c. Miami silt loam
   d. Miami silt loam - deep phase
   e. Miami silt loam - level phase
   f. Miami loam - hilly phase

Of these six types the Miami clay loam and the Miami silt loam comprises nearly 50% of the soil of the county. Much of the soil of Richfield, Polk, and Germantown townships belong to the Miami clay loam. The Miami silt loam is the most extensive of
Washington County soils and is the principal soil of Addison, Hartford, Erin, Wayne, and Kewaskum Townships.

When the County was settled most of the soil was covered with virgin timber consisting largely of oak, maple, elm, ash, beech, hickory and basswood. Today most of the merchantable timber has been removed and the land put under cultivation.

The surface of the Miami clay and silt loam soil of Washington County varies from undulating to gently rolling. The natural surface drainage is good. About 10 percent of this area has inadequate under-drainage and must be tilled for best agricultural crops. General farming and dairying is the principal type of agriculture. Some cash crops, as peas, sugar beets, red beets, barley, potatoes, carrots and tomatoes are also grown. The yields secured compare favorably with any secured in Wisconsin. Alfalfa and most legumes have in the past grown well without the addition of lime or fertilizer. Farms on this type of soil and which are well located usually command top prices. This is because of the fact that most of the land can be readily improved with the minimum of effort. The good roads, schools, churches, and shipping facilities are added factors that make this land highly desirable for agricultural purposes.

(2) Fox Loam and Silt Loam:

Of these two soil series the Fox loam, heavy subsoil phase, is the most important. The Fox silt loam occurs only in limited areas. These are to be found mostly along the streams and natural terraces of Jackson, Farmington, and West Bend townships. Because of its presence in only small areas, few if any farms are located entirely upon it. The same can be said of the Waukesha silt loam.

II. THE SANDY AND GRAVELLY SOILS

(1) The Miami Gravelly Loam Phase:

This soil phase is quite widely distributed in smaller areas throughout the county. Its most extensive occurrence is within the Kettle Moraine Area. In the more sandy sections of the county this phase becomes the sandy loam phase.

(2) The Rodman Series:

This series is found in the extremely rough and broken morainic country where the soil consists almost entirely of gravel and has only a very shallow covering of top soil. The gravel is made up almost entirely of glaciated limestone.

(3) Coloma and Plainfield Sand:

These two phases of sandy soils are of only medium
importance in the agriculture of Washington County. They are found principally in Farmington and Trenton Townships and in small areas along the borders of the Kettle Moraine. These soils respond well to commercial fertilizers and are well adapted to dairy farming with potatoes as a cash crop.

The three mentioned phases of soil comprise most of the land in the Kettle Moraine Area. The soil is light colored indicating the absence of organic matter. Less than one-half of it is under plow. The rougher areas are utilized for forests or grazing. This area is Washington County's problem area since much of the land is either too low in fertility or subject to erosion.

III. THE PEAT AND LOW LAND SOILS

(1) Clyde Silt and Clay Loam:

These two phases of soil constitute a large part of the poorly drained non-peat area of the county. In recent years a part of this soil has been improved through tilling.

The surface soil of the Clyde silt and clay loam to a depth of 10-14 inches consists of a black smooth silk loam which is very high in organic matter. The subsoil is usually a clay loam and extends to a depth of three feet or more. This soil is all low-lying and lacks sufficient natural drainage for good crop production. Drainage, either tile or open ditch, or both are necessary before this type of soil can be classed as desirable agricultural land.

The land when drained and broken makes excellent agricultural land, and deep rooted crops as corn, carrots, and sugar beets and non-legume hays produce superior yields upon it.

(2) Peat:

Peat and muck soil is found in every township in the county. The largest areas are found in Wayne, Jackson, Germantown, Erin and Addison Townships.

The peat soils lack ample natural drainage for good agriculture. Where the peat is in an advanced stage of decomposition, it has been found practical, if good drainage is possible, to clear this land and put it into agricultural use. In past years many acres of peat land had been broken and seeded to Canary grass. In the town of Wayne nearly 2,000 acres in one farming unit have been so managed. With careful farm management this type of land can be made to produce almost unlimited quantities of high quality forage.
LAND USE CLASSIFICATION

At the final meeting of the Community Committees, all land of the County was classified into five major land use classifications shown on the accompanying map. The method of procedure was presented earlier in this report. The five different classes into which the land was grouped are given below:

A. **Areas Now In Farms Which Are Not Suited For Farming And In Which the Lands Should Be Put To Some Other Use.**

These areas were marked A and colored blue.

B. **Areas Not Now In Farms And Which Should Not Be Used For Farming Because They Are Uns suited For This Use Either As Full-Time Or As Part-Time Farms Used In Conjunction With Existing Dependable Opportunities For Non-Farm Work.**

These areas were marked B and colored green.

C. **Areas Now In Farms and Which Are Questionably Suited For Arable Farming.**

An arable farm is one on which ten percent of the land is tillable. These areas were marked C and colored red.

D. **Areas Not Now In Farms But Which Are Suitable For Development into Either Part-time or Full-Time Farms.**

These areas were marked D and colored orange.

E. **Areas Which Are Now In Farms And Which Should Remain In Farming. Either With Or Without Some Changes Or Shifts In the Size And Type Of Farm, The Cropping Systems, And Soil Conserving Practices Followed, Or Other Adjustments In The Farming System.**

These areas were marked E and colored yellow.

In the preparation of the Land Classification Map no land was placed in Class A or Class D.
LAND USE AREAS AND RECOMMENDATIONS

The total land of the County was classified by the County Committee into three areas as follows:

Area B - 1200 Acres
Area C - 11,800 Acres
Area E - 244,360 Acres

Area E was further subdivided into 8 sub-areas. This division was based on soil type, topography, erosion problems, differences in cropping systems, in farm management problems, and marketing problems. Most of these farms have but little if any waste land. That land which is not tilled is used for permanent pasture or as a source of firewood and pasture.

The 8 sub-areas and the acreage of each is as follows-

Sub-Area E-1 - 47,480
Sub-Area E-2 - 37,000
Sub-Area E-3 - 34,320
Sub-Area E-4 - 41,040
Sub-Area E-5 - 38,480
Sub-Area E-6 - 28,120
Sub-Area E-7 - 12,240
Sub-Area E-8 - 5,680

AREA B LAND

Three small areas of land in the Southern portion of the County were classified as class B land. This land now consists of poorly drained peat and muck soil covered with a timber growth of varying intensity. It is mostly used as a source of firewood by farmers nearby. Land in this class is not a part of a regular farm and would be bought, sold or leased as independent units of land.

All Community Committee members felt that this land should not be cleared. It was their recommendation that these sub-areas are more valuable if retained as forest land. If was further recommended that the conservation program make possible the acquiring of free tree seedlings of an adapted variety for reforesting such land. What is meant by adapted varieties is discussed later in this report on page 23.

Sub-Area B-1

This area consists of about 35 separately owned parcels of wooded land. The underlying soil is a rich dark muck, too wet for cultivation. Practically all land surrounding this area which is a part of an adjoining farm and which has fair drainage,
either natural or man made, has been cleared and broken during past years. All that land in sub-area B-1 needs is drainage to change it from its present use, timber growing, to highly productive truck crop or corn land. Frequent unsuccessful attempts have been made to establish a drainage district in this area.

Sub-Area B-2 and B-3

These areas are the least suited to clearing and tilling. It was the consensus of opinion that the best use of land for sub-areas B-2 and B-3 is to retain them as woodland, and to reforest them, when and if necessary by planting adapted seedlings.

Area C Land

Two areas were designated as land which is questionable for agriculture. All of the farms at the present time in these areas may be classed as arable since 10 percent or more of the land is tillable. It was, however, the judgment of the two Community Committees and of the County Committee that farming was not the best use that can be made of the majority of the land in these two areas. They have similar morainic soil with Rodman gravel predominating. The soil consists of a shallow covering of loam with a gravelly sub-soil. Its productivity is relatively low. A goodly portion of the land is in permanent pasture. In poor crop years those who farm in this area are among the first to suffer crop failure.

Area C land comprises 4.63% of the total land area of the County. Yet farmers in this area represent 6.45% of the tax delinquency of the County. It also represents 5.43% of the Production Credit Loans, and 5.26% of the Federal Land Bank Loans. While these percentages are not excessively out of proportion to the remainder of the county, they do show that farmers in area C land find it more difficult, as compared to farmers in other parts of the county, to meet their financial obligations. It was the opinion of the County Committee that these problems may become even more acute in future years because of decreased farm income.

It was their opinion that future tax delinquency and relief problems for the County may be eliminated if the necessary steps be taken in the near future to acquire land in area C for park and recreational purposes.

It was the judgment of both the Community Committee and the County Committee that further study be made of these areas with a view of finding a more profitable land use than their present ones.

Sub-Area C-1

This sub-area comprises 6,320 acres. 52 percent or 3,320 acres are wooded or in permanent pasture. Since this area is located within one hour’s driving distance of a metropolitan center representing three-quarters of a million people, it was
considered desirable that this land be included in a public park and used for recreational purposes for greater Milwaukee and surrounding regions.

There are no State or Federal recreational centers or parks in Washington County. City Parks within the county are frequently over-crowded with visitors from the metropolitan area. More recreational space is needed.

The several lakes including Cedar Lake which has more than 15 miles of shore line, the scenic morainic hills, and the many wooded knolls make this area ideally adapted for a year round recreational use. The Community Planning Committees felt that the County Park Board, the Wisconsin Conservation Department, the State Board, and other State and Federal Agencies and Departments concerned should give this area further study with the view of including it as a recreational center for Southeastern Wisconsin.

Included in this area according to Community Committee estimates of the predominating land of each 40-acre tract there are also 3000 acres of tillable land. This represents 48 percent of the total land involved.

Two uses could be made of these areas. The land could be seeded to a conserving crop. It then could be rented out for grazing purposes. In this way the land could be made to produce a revenue during the years it was being developed for recreational purposes.

In the wooded areas where the timber stand has been thinned by local cuttings in past years, and on the smaller cultivated fields, reforestation by planting adapted varieties of trees can be carried out.

It is not the intention of this report to indicate the adapted varieties of trees. It was, however, the consensus of opinion that hardwood seedlings make up most of the plantings. The State Extension Forester should be invited to confer with the County Agricultural Committee in determining what the adapted varieties of trees are. It was further recommended by the County Committee that the County Board petition the Federal Government to establish a CCC Side Camp in this area for the purpose of providing the labor necessary for converting this area into a recreational park. Should the amount of CCC labor be inadequate, men could be taken from the relief rolls to carry on this project.

Sub-Area C-2

This area totalling approximately 5,600 acres is made up of very hilly and rough, gravelly soils with one small natural lake in the southern part. In addition the Milwaukee River runs along its southwestern boundary for about half of its length.
It was felt by the Community Committee that about 2,072 acres or 37 percent of the area is adapted for crop land. Approximately 1,792 acres or 32 percent of the area is now in permanent pasture with a good part of it wooded. The remaining land, 31 percent or 1,736 acres, is now farmed but is of such nature that it is questionable for agricultural use according to the opinions of the Community Committee.

Because of its proximity to the Mauthe Lake State Park, located in the adjoining County immediately to the north of this sub-area, the Community and the County Land Use Planning Committee feel that this area should be considered by the State Park Board as a possible addition to the Mauthe Lake State Park and that appropriate action be taken by the County Board towards such a development.

Included in this recommendation is the proposal that this area be reforested. Future serious erosion problems would therefore be avoided and the soil would be growing a valuable woodland crop.

Until such time as this area is turned over to public recreational uses the following recommendations for farm management are suggested:

1. That farms within the area be given a 60-40 conserving-depleting allotment in the A.A.A. Farm Conservation program.

2. That the increased use of grass silage be encouraged.

3. That no land now in permanent pasture or woods be broken or cleared.

4. That adequate erosion control measures of strip cropping and grassed water run-offs be carried out.

5. That the State Conservation Department increase their restocking of the game and fish life in this area.

It was further suggested that many farms in this area would be suitable for private hunting grounds if the owners could assure hunters of reasonable game catches. It was felt that since more and more of the townships of Southeastern Wisconsin Counties were closing their boundaries to open hunting, there would be a demand on the part of hunters and fishermen from the Milwaukee Metropolitan area for the establishment of private hunting and fishing grounds. Many of these hunters and fishermen would be willing to pay reasonable fees for the privilege of pursuing their sports. The County could further cooperate with privately owned hunting and fishing grounds by adjusting the tax burden and the state by supplying young game and fish stock.
It was suggested that the recommendations in the Land Use Planning project give due consideration to park and recreational possibilities within the County. Both Committees recommended that sub-areas C-1 and C-2 be set aside on a long term basis as a distinct park and recreational area. However, a distinction was drawn between the two sub-areas in the following way:

Sub-area C-1 includes the Cedar Lake region. It has within it considerable land suitable for farming. A large part of the remaining land has already been developed by prior enterprises for residential and recreational use. The land values are high and its acquisition would be a slow and expensive venture.

Sub-area C-2 is characterized by almost a complete absence of good agricultural land. It is a composite area and runs adjacent to Sauthe State Park. It would lend itself admirably to conservation purposes. It was thought that this land could be purchased at a comparatively low cost.

The suggestion was made and voted upon favorably by the County Committee that an attempt be made to acquire isolated smaller parcels of poor agricultural land throughout the county. That such parcels of land be reforested and developed into parks, and hunting or shooting reserves. This plan might encounter less resistance to carry out as it would minimize the amount of money needed.

RECOMMENDATIONS FOR THE E LAND

The recommendations which are being offered in this report for the eight subdivisions of the class E land are largely the consensus of opinion of the five Community Committees. These recommendations have been reviewed and evaluated by the County Committee and have their full endorsement.

In no instance was it the intention of either Community or County Committees to alter or to interfere with the carrying out of the peaceful pursuits of the present day agriculture. The recommendations are suggested in order to bring about a more desirable and a more worth while use of land of the areas for which they are made. The changes in land use will be largely the result of rural education by schools and by all agricultural agencies within the county. Hence the recommendations made in this report are long time objectives. Future agricultural programs should be planned to bring about the fulfillment of the land use recommendations.

Since all of the class E land is considered desirable farming land and is intensively farmed, the recommendations made
for this area may be applied with but few minor changes to other areas. There will also be considerable overlapping of recommendations. This is logical since there is so little difference in the various sub-areas. The main differences in the recommendations depend largely upon -

1. The topography of the land.
2. The composition and fertility of the soil.
3. The present marketing methods.

In most of these sub-areas the variations are so small that definite recommendations may be questioned.

Sub-Area E-1

Sub-area E-1 contains 47,480 acres and is regarded as the most fertile and the most diversified farming area in Washington County. About 75 percent of the soil here consists of Miami and Clyde silt and clay loams. The remaining 25 percent of the acreage is peat land which in many instances has decomposed into a muck soil highly prized for agricultural purposes. This makes this area one which lends itself to much diversification.

The entire area lies within the fluid milk zones of the Milwaukee and Chicago Markets. Dairying is the chief source of agricultural income. It was deemed desirable to continue all of the present crop land in agriculture. This sub-area had more cash crop acreage in 1939 than any other corresponding equal acreage in the county. The A.A.A. listings of the 1939 crops show that more than 7 percent of the crop land was planted to cash crops excluding barley.

Since much of this area has soil ideally suited for truck crops, and since the truck crop zone is rapidly being extended to greater distances from Milwaukee, it was the opinion of community committee members that the future will see an expansion of the growing of truck crops on the adapted land of this sub-area. Several such truck crop farms are already established. The shift from the present cropping systems to the growing of increased acreage of truck crops is to be made when the market is ready to absorb the products. The value of the land furthermore is such that a more intensive agriculture must be practiced to make a profit on the investment represented in the land.

Southeastern Wisconsin because of its large population consumes many bushels of apples. A large portion of this fruit is shipped in from Michigan and from the West Coast. Only a small percentage of the total apples consumed by the Milwaukee area is produced locally. The southern counties bordering on Lake Michigan have in recent years planted many acres of apple orchards. These have proved highly productive and have yielded good returns on the investment to their owners. The eastern border of sub-area is within 15 miles of the shores of Lake Michigan. The distance to the Milwaukee markets is about the
same. Its Miami clay loam soil is ideally adapted to fruit growing. There are a number of mature and well producing orchards found within the area. These are undeniable proof that this area is adapted to the production of quality tree fruits, particularly apples. It was the suggestion of the local committee that further study be made by the County Extension Department in cooperation with farm orchard specialists from the College of Agriculture with a view of increasing the orchard acreage.

The poultry business fits in nicely with fruit and truck crop farming. This is true because the labor needed for these two types of agriculture does not conflict to any great extent. It is also possible to make use of marketing contacts of the fruit and truck crops for obtaining a market for the poultry products. An expansion of the poultry industry was deemed advisable for farmers within this area, particularly insofar as it affects those who may shift from dairying to fruit and truck cropping.

It was further suggested that 60 percent and 40 percent were fair apportionments of depleting and conserving crop acreages respectively. That five-year rotations be followed with two years soil conserving crops, one year small grains, and the remaining two years be planted to intertilled crops.

A study of the acres of farm crops indicates that 16.5% is planted to barley and 19% to oats. Barley has always been an important cash crop. Scientific studies made by the Wisconsin Experiment Station show that the total digestible units per acre with average yields of barley is 1131.9 pounds as compared to 784. pounds for oats. This indicates that barley is a cheaper source of food nutrients than oats. The Community Committee recommended that since this sub-area is adapted to good barley culture more acres of barley be grown. It was suggested that the barley–oats ratio be on a 50–50 basis.

Sub-Area E-2

Sub-Area E-2 contains about 37,000 acres and is a highly productive soil. The soil is partly Miami clay and partly silt loam. The balance of the land equal in area to about one township is a mixture of glacial soil and the product of the integration of Cincinnati shale which is the predominating underlying rock. The soil in this sub-area is more in need of lime than is the soil of any other part of the county. The soil analysis of more than 400 samples taken from 34 farms shows that about 60 percent of the land is acid. Years of heavy cropping have greatly reduced its available phosphorus content to a point where this element should be replenished.

The land in this area prior to 1920 was the largest producer of white clover seed in the United States. The soil was relatively free from weed seeds and good stands of white clover grew naturally. Following the advent of the agricultural
depression which came shortly after the world war days, the price of white clover seed dropped to a point where there was little if any profit in its production. Farmers turned to the production of alsike clover to take the place of a lost white clover income. Today many farmers are anxious to resume their former white clover seed production. Many of these farmers find that their land will no longer produce pure stands of white clover seed because of the presence of alsike seed in the soil. The seeds of these two clovers cannot be separated by the use of machines in common use. Thus, this good white clover seed market which frequently in years past produced much cash crop revenue is partly lost at least to the farmers of this sub-area.

It was the consensus of opinion that farmers in this region cooperate with the Extension Office and carry out an extensive soil testing program. The application of lime and phosphorus as has been shown by repeated experimental trials will insure better legume hayland catches and will appreciably strengthen the plant to overcome winter killing. It was thought that if this were carried out for a period of ten years, purer stands of white clover would result. Other recommendations were to the effect —

(1) That all arable land be in a conserving crop two years out of every five.

(2) That the production of adapted fruits such as apples be encouraged to a point where local demands are supplied by home production.

(3) That barley and oats acreage be divided on an equal basis.

(4) That low land areas be utilized for the production of carrots as a cash crop.

(5) Production of fluid milk is one of the best farm practices for this area. Farmers should endeavor to maintain their market by continuing to produce a quality product.

Sub-Area E-3

This area, totalling approximately 34,000 acres includes most of Richfield township and about one-half of Polk township. The soil type shows typical Washington County variation and could be described as being made up of the Miami silt and gravelly loams with some areas of peat. The topography ranges from undulating to hilly depending on its proximity to the Kettle Moraine area. This area was so outlined on the map because it represents a transitional area between the Kettle Moraine topography and the rolling level surface features of Area E-1.

Since this area is a transitional area having both level to undulating and hilly land, recommendations made for Area E-1
and E-6 will also apply to this area depending upon the type of land concerned. For example - the hill regions should adopt erosion practices whereas the level areas may consider such practices as fruit growing or production of truck crops if soil and market conditions warrant.

A recommendation offered was that the farmers be encouraged to increase their barley acreage and reduce oat acreage accordingly so as to produce their livestock feed at a lower cost per pound of food nutrient.

U.S. Highway 211 traverses this area for over fifteen miles. This is a heavily traveled highway during the summer months when there are many tourists as well as much travel back and forth from the lake regions. This large number of people using the highways should provide ample patronage for roadside vegetable and fruit stands. That such stands could be profitably operated was the opinion of community committee members who recommended that interested farmers market such commodities as fresh eggs, fresh vegetables, home made preserves and canning, honey, sweet corn, melons, apples and other similar commodities that they may have to offer for sale at this time of the year. In addition some farmers may further utilize their location to the point of providing overnight guest rooms or cabins for tourists.

Since this area is definitely low in hog production, an increase in hog production for the home meat supply is advocated up to a point where each farm on an average has one brood sow. It is felt that such an increase in hog production may be safely made even with present hog prices, because of the spread between retail prices and cost of producing pork for home use.

Sub-Area E-4

Sub-area E-4 which includes 41,040 acres is now largely a diversified dairy region. Like the sub-area E-3 the topography offers much variation. It ranges from peat deposits to the more rolling soil of the county. The soil too offers much variation but consists largely of Miami silt loam (rolling phase).

Barley, potatoes, sugar beets, and some canning peas, are the leading cash crops.

This area is ideally suited to dairying. Its many rolling hillsides are adapted to the growing of legume crops for hay and pasture, and the low and fertile valleys can and do produce corn, grain and cash crops. It was recommended that erosion control practices be included in the farm management policies of the land in this area. There is ample evidence, like the presence of gullies, the deposits of sand and gravel washed down from the hillsides, the filling in of fence embankments, and the out-cropping of subsoil, to show that much erosion is taking place. Most of the most seriously eroded land is adapted to strip cropping. Some contour farming may also be practiced as a few slopes are of sufficient
length and regularity to justify such practice. Waterways showing erosion tendencies should be sodded before serious damage is done to the land. Some land owners expressed the wish that their area be included in an erosion district so that local farmers may have the advice and guidance of the Soil Conservation Service.

It was the opinion of the Community Committee that the conserving crop and depleting crop ratio be divided on a 50-50 basis. For individual farms the ratio would vary with the topography. This higher conserving acreage will necessitate the increased use of grass silage.

Sub-Area E-5

This area making up the greater part of Farmington and Trenton townships comprises approximately 38,840 acres. The soil types vary widely including peat soils, but the Miami loams and the Fox sandy loams predominate and the surface topography is classed as undulating becoming hilly in certain parts.

There is less than one-third as much barley grown as there is oats. The cash crops of the two townships concerned are below the average of the county, particularly for Farmington township. Farmington has the highest percentage of conserving crops. Trenton township has the lowest number of milk cows and brood sows per farm as compared to the remainder of the county.

General recommendations are as follows:-

A general shift from oats to barley as a feed for livestock wherever soil conditions warrant. This change can be continued until 40 percent of the grain planted is barley. More diversification should be practiced in the form of more cash crops particularly for Farmington township. The cash crops to be planted will vary with soil conditions. The production of legume seeds might be considered practical for the area since it is now growing a high percentage of conserving crops.

Special erosion practices other than the use of conserving crops need to be carried out on a limited number of farms in the Kettle Moraine part of this area. Control of erosion losses can very effectively be accomplished by strip cropping or a modified form of this practice.

This area is low in hog production and for this reason the same recommendations as were given for sub-area E-3 will apply here.

Sub-Area E-6

Sub-area E-6 consisting of 28,120 acres is made up largely of the land in the Kettle Moraine. The hills in this area are not as steep and broken as they are farther north in
the Moraine. Much of the area is adapted to being continued as crop land with special management recommendations to be carried out on the more hilly land. The Community Committee pointed out that among the special management problems are those of erosion control. Fully 10 to 12 percent of the land in this area should be strip cropped. There would even be a few farms that might go a step farther and practice contour cropping. Furthermore, there is need for sodded water runways. Other recommendations were to the effect that conserving crops should be planted on about 55 percent of the crop acres. This is not impractical as much of the conserving crops may be utilized either as a dry feed or as silage for the livestock. It was further suggested that dairying be the main source of income of the agriculture of the sub-area. Cash crops should not be extensively grown except on the more adapted soils. Not more than three and one-half percent of the crop land should be planted to cash crops.

Sub-Area E-7

Sub-area E-7 consists of approximately 12,240 acres. It includes that part of Wayne and Addison townships which lies in the Rock River Valley.

This region is made up largely of poorly drained swamp and marsh soils of the light and shallow peat type flanked on each side by rough hilly topography. Most of the lowland acreage is being used chiefly as a source of firewood and lowland pasture by the farmers owning the land.

About 2,000 acres in the north end of this area are under the ownership of one corporation. About 1,400 acres have been broken up and seeded to Reed Canary Grass. This crop is harvested both for seed and hay.

It was the opinion of the community committee that the cultivation and cropping of land in this area is a questionable practice because of poor drainage and in some cases because of extremely rough hilly land.

The recommendations for this area are the following:

(a) For the swampy area not now cultivated - that the farmers in this area cooperate with the Wisconsin Conservation Commission in restocking and feeding the wild game in this area, particularly pheasants.

In return for the farmers extra work and trouble he could sell hunting privileges on his farm. Many Milwaukee sportsmen would be willing to pay a reasonable fee for hunting if they had assurance that there was game to be had.

(b) For the poorly drained area now cultivated -

Continue farming the land suitable for normal agricultural purposes. The balance may be seeded to Reed Canary
Grass and the crop may be harvested by either pasturing it, cutting it for hay, or green silage or both for hay and seed.

(c) For the rough hilly land of this area —

This land for the most part should be kept in conserving crops and a five-year rotation practiced using a cultivated crop only one-year out of six, one year a grain nurse crop and the remaining four years conserving crops with the production of legume seed crops as the primary objective. It was felt that the possibility of securing "catches" of legumes could be made greater by proper applications of lime and fertilizers, particularly phosphates when needed as shown by soil tests.

The increasing use of legume crops as a green silage should be practiced to replace part of the corn acreage on the steepest slopes.

Another erosion practice besides the use of conserving crops that should be carried on is strip cropping or a modified form of this practice to prevent continued soil losses from these hillsides. Further discussion of erosion control will be found on page 42 of this report.

Because of the small area involved no other recommendations will be made concerning shifts in cropping systems. The recommendations for other areas bordering sub-area E-7 will apply also for this area.

Sub-Area E-8

Sub-area E-8 comprises 5,680 acres. This area includes the greater portion of the light soil of the county. Because of this it deserves special consideration in a Land Use Study. This sub-area in the past has been devoted largely to dairying with a small acreage of potatoes as a cash crop. Dairying should be continued on a basis similar to past practices.

Special emphasis should be given the use of green manure crops such as sweet clover or rye for the purpose of increasing the organic matter in the soil. In years of insufficient moisture these soils are the first to show the effects of drought. An increase in the amount of organic matter will help to conserve the moisture in these light soils.

In the fall immediately following the harvesting of a tilled crop the field may be sown to rye for the purpose of preventing wind erosion and also to hold the snow in the winter time. The rye can then be plowed under in spring as a green manure crop or left for pasture or grain. It was recommended that the land in this area should be in conserving crops about three years in every five years.
It has been recommended that the conserving to depleting ratio be 60-40 respectively for this area.

With the greater use of sweet clover or rye as a green manure the acreage of potatoes as a cash crop may be increased because of the adaptability of these sandy soils to the production of high yields of potatoes. Some of this increased acreage of sweet clover may be used for the production of seed.

The other recommendations for this area would be the same as for the surrounding sub-area E-5.

AREA RECOMMENDATION SUGGESTIONS

The area recommendations presented in this report are intended merely as possible future goals. They are not presented in a sense of being final and are merely offered as preliminary suggestions by which the farmers of the areas concerned can guide themselves in their future farm management plans.

The data in the table below gives information concerning the past, present, and suggested future crop acreages and livestock numbers of the average Washington County farm.

The data presented in the column headed 1924 was taken from the Wisconsin Crop and Livestock Reporting Service, that in the 1939 column was taken from the A.A.A. listing sheets for that year, and the estimates given in the column headed 1954 are based upon the recommendations made in this report.

<table>
<thead>
<tr>
<th>Crop</th>
<th>1924</th>
<th>1939</th>
<th>1954</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oats</td>
<td>16.9</td>
<td>15.3</td>
<td>11.1</td>
</tr>
<tr>
<td>Barley</td>
<td>2.3</td>
<td>8.5</td>
<td>9.5</td>
</tr>
<tr>
<td>Rye</td>
<td>1.5</td>
<td>1.4</td>
<td>1.2</td>
</tr>
<tr>
<td>Corn</td>
<td>10.5</td>
<td>11.2</td>
<td>11.1</td>
</tr>
<tr>
<td>Clover</td>
<td>10.7</td>
<td>7.6</td>
<td>8.1</td>
</tr>
<tr>
<td>Alfalfa</td>
<td>3.4</td>
<td>6.9</td>
<td>10.1</td>
</tr>
<tr>
<td>Potatoes</td>
<td>2.1</td>
<td>1.2</td>
<td>1.5</td>
</tr>
<tr>
<td>Peas</td>
<td>1.6</td>
<td>.9</td>
<td>.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>49.0</td>
<td>52.0</td>
<td>52.0</td>
</tr>
<tr>
<td>Milk Cows</td>
<td>9.9</td>
<td>11.1</td>
<td>10.0</td>
</tr>
<tr>
<td>Brood Sows</td>
<td>1.0</td>
<td>1.07</td>
<td>1.2</td>
</tr>
<tr>
<td>Laying Hens</td>
<td>68.2</td>
<td>64.3</td>
<td>72.0</td>
</tr>
<tr>
<td>and Pullets</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Horses</td>
<td>3.4</td>
<td>2.8</td>
<td>2.5</td>
</tr>
</tbody>
</table>
GENERAL COUNTY RECOMMENDATIONS

FARM PURCHASE FOR TENANTS:

Most of the community committees gave approval to the practice of the Bankhead Act which provides governmental aid in the purchasing of farms by selected and worthy young farmers. It was suggested furthermore that such aid as allotted to this county be confined to farmers living within the county.

In Washington County there appears to be a definite correlation between farm tenancy and tax delinquency. Therefore any agricultural policy that will decrease the percentage of tenancy will also decrease tax delinquency.

FARM TENANCY:

The farm tenancy problem is one of grave concern in any community. Washington County because of its productive land and good market facilities is a county with a low tenancy rate. In 1935 the percent of farm tenancy in the county was 14.4 percent of all farms. By 1939, this percentage had increased to 16.4 percent according to information based on the registration of farms in the Agricultural Conservation Program. This would indicate that farm tenancy is definitely on the increase.

Most Community Committee members favored share rental as having advantages over cash rental in maintaining soil fertility and in more desirable farm management practices. This is because in share rentals more voice is retained by the land owner in the planning of the crop rotation, the farm management practices, etc., to be carried out by the renter.

It was further recommended that the number of years a farm be rented under the terms of a given contract be increased. Most farms are now rented for a period of one year for beginning renters and not to exceed three years for renters who have proved satisfactory. The recommendation made was that this period be increased to five years.

In recommending that tenants be given long time rental contracts, the County Committee pointed out that the important consideration was not necessarily the length of time for which a farm is rented, but rather the provisions called for in the rental contract. This agreement to contain more satisfactory provisions for a greater participation by the tenant in the Soil Conservation practices adapted to the farm. The tenant should receive his just share of the benefits for this participation.

This, it was felt, would serve as an inducement for a worthy tenant to increase the amount of his seedings and other soil
building practices. This longer rental period would enable the
tenant to share more fully in his soil improvement practices.

CEDAR LAKE RESORT AREA:

The statement was made in the Community Committee meeting
of Barton and West Bend townships, that Cedar Lake is filling up
with soil and weeds at an alarming rate. Furthermore, that if the
present filling up of the lake continues it will only be a short
time before the beauty and utility of the lake as a natural re-
source will be curtailed.

The trouble appears to arise from two sources. First -
the annual accumulation of dead weeds, and secondly - from the
erosion which takes place on the hillsides which drain into the
lake. Both factors work jointly to increase the amount of lake
fill. It was the opinion of the Community Committee that there
were methods and means for attacking both of these problems.
Consideration of the problem is of county-wide concern and the
immediate attempt to control it can be thoroughly justified on the
basis of conservation. The Community Committee, in part at least,
felt that something must be done to retain the beauty, utility, and
property values of the Cedar Lake Area. It was suggested that a
recommendation to that effect be included in this Land Use Planning
report, and furthermore, that this matter be called to the atten-
tion of the County Board of Washington County.

Buildings are being erected along the Cedar Lake shore
line which are obstructing the view from the highway of this
beautiful lake. That such erection of buildings greatly impairs
the beauty of the lake and lowers its value is the belief of the
Community Committee of this community and of the County Land Use
Planning Committee. It was their urgent recommendation that this
destruction of the beauty of the lake be called to the attention
of the Washington County Park Board with the suggestion that this
Board take immediate steps to prevent the further erection of such
buildings.

LIVING SNOW FENCES:

The removal of snow from the highways of the county during
the winter months is a costly and important problem. Two important
state and federal highways run in a northerly and southerly di-
rection through the county. Two additional state trunk roads trans-
verse the county in an easternly and westernly direction making a
total of 141 miles of state trunk roads. In addition the county
has 165 miles of county trunk roads and 644 miles of township/roads.
To permit the marketing of agricultural products, especially fluid
milk, it is imperative that all roads be opened promptly after
snow falls. This requires, on the part of both the county and the
civil towns, the maintenance and use of expensive snow removal
machinery.

It was felt by various members of the West Bend-Barton
Community Committee that a part of the snow removal expense could be saved by the planting of living snow fences along highways in regions where county highway records show that bad drifting occurs. Since the trees used as living snow fences must be planted some distance away from the highway right-of-way, it becomes an expensive practice in regions of high priced agricultural land such as is to be found in Washington County. Therefore, the recommendation was to plant such snow fences only along much traveled highways in places where unbroken or cheap land lay adjoining the public right-of-way. It was further recommended that this be done at the expense of the political agency maintaining the road. Since snow fences are still in the experimental stage, it was further recommended that only limited planting be made in any given year.

FARM WOODLOT MANAGEMENT:

Washington County was once largely covered with native forests. Man in his desire to obtain crop land has cut down trees and cleared the fields with little thought of the future supply of wood products. Today less than one-eighth of the total land area of the county is in forests. To make matters more acute about 97½ percent of what woodlands there are left in the county are pastured by livestock. This makes it almost impossible for young trees to grow up and replace those that are removed as logs or for firewood purposes.

The various community committees have suggested and submitted to the county committee for their approval a recommendation that more effective means of conserving our forest acres be inaugurated. They suggested that more farmers comply with the present woodlot tax exemption law.

Under this law, land which is recognized as a part of an operating farm is eligible for tax exemption if such land conforms to the following requirements:

(1) Such land must be fenced in order to keep out livestock. (2) Wood land exempt from taxation may not exceed 20 percent of the farm. (3) Such woodland must not be burned, thus destroying young timber growth.

Land with more than 30 percent slope and which complies with the above requirements for wooded acres may also be tax exempt under present law. The extent of this acreage is not limited. However, if the area is not wooded the owner is required to plant such land to grasses, trees, or vegetation which will prevent erosion.

It was recommended that more local publicity be given the woodlot tax exemption law. Also that benefit payments equal to the current rent plus tax exemption for the land be paid such woodlot owners who conform to the full requirements of the Wisconsin woodlot tax exemption law.
WILD LIFE FEEDING:

During the past winter and in former years the Wisconsin Conservation Department has distributed feed for pheasants and other forms of wild life. To avoid the possible use of commercial feeds which might contain noxious weed seeds and because of the present big surplus of farm seeds, it was recommended that only farm grains of a reasonable degree of purity be purchased by the Conservation Department for this purpose. The small difference in cost, if any, may prove to be a good insurance against the spread of some of our worst weeds.

THE RELATIONSHIP OF THE SIZE OF THE MORTGAGE TO THE TOTAL INVESTMENT:

It was regarded unsafe for a man to start farming if the mortgage exceeds 50 percent of the investment. Of course this percentage is to some extent dependent upon the managerial ability of the farmer. If the managerial ability is above the average, then the percent of the mortgage may exceed 60 percent or possibly even 70 percent. However, it was felt that about one-half of the investment is all that should be mortgaged if the farmer be an average farmer and wishes to be reasonably sure of promptly meeting his obligations.

The above is an answer to the question frequently asked regarding what percent of the total farm investment may be represented in the mortgage. The answer to this question as given above may be used as a guide for advising those with limited capital and about to invest in farm property.

RELATION OF SIZE OF FARM AND PERSONAL PROPERTY LOAD:

It was felt that the size of the average farm in Washington County has become too small for an economical unit of farming. The reason for this is the advent of mechanized agriculture. This means more machinery and a more expensive overhead. All farmer committeemen agreed that the personal property load on present average Washington County farms was much too large. Various ways of reducing this overhead per acre of arable soil were suggested. However, it was felt that almost every method of reducing the personal property investment was circumscribed with certain limitations. In Washington County, unlike many other parts of the state, 85 to 90 percent of the farms, irrespective of size, are equipped with practically all of the machinery needed for doing all types of farm work except that of threshing the grain. That is each farmer has his own tractor, silage cutter, grain binder, etc. It was thought that neighborhood cooperation in the utilization of the more specialized machinery might reduce the personal property overhead per farm. It was the opinion however that such cooperation would be practical only in a limited number of communities. In a large percentage of these communities this cooperation is
already being practiced. In many other communities, it was attempted, but was not successful.

Most farmers felt that it is an unsound agricultural practice to replace the horse with the tractor to the extent that the farm become a "horseless" farm. Yet many farms in the county are supplementing horse power with tractor or motor power. Those who do this claim economy and convenience of operation.

Much additional research by the College of Agriculture, as well as by farm machinery manufacturing plants remains to be done on the farm concerning the machine problem. It is generally agreed that mechanized agriculture is here to stay. Its present handicap is the cost of upkeep. Further study and research may find ways of reducing this cost. The following is a possible suggestion:

Discarded automobile tires have but little cash value, yet they, might give service for an indefinite period of time if they could be used on rubber-tired farm machinery. To use them for this purpose would necessitate that farm machinery wheels be built of standard automobile wheel sizes. This is not being done to any great extent at present. It was recommended that further research be undertaken on the problem of more economical and better adapted farm machinery.

INTEREST RATES:

Many farmers of Washington County are borrowers from the Federal Land Bank at St. Paul or from some other Federal Agency. The recent world wide depression, which started in 1929, brought about changes in the credit systems of the United States of America. To relieve distressed local banks, the Federal Government through its system of Land Banks took over many of the farm loans which up to this time were held by local money lending institutions.

One requirement of borrowing money from Federal sources is that the borrower acquire loan association stock amounting to five percent of his loan. In practice this requirement has added five percent to the amount borrowed. Farmers have not always been assured that this money would be returned to them. It has been recommended that this step be discontinued. Also that one-half of the cost of applying for a loan be returned if the loan is denied. It was further suggested that this recommendation be communicated to the Governor of the Farm Credit Administration in Washington, and to all local banks and other farm loaning agencies.

WEED CONTROL:

Noxious weed infestation lowers the value of agricultural land. Farm lands in southeastern Wisconsin have for many years been heavily infested with certain bad noxious weeds such
as Canada thistle and quack grass. In the past few years, with the aid of the farm tractor and modern machinery, the fight against the spread of these and other weeds has reduced their number on many farms. There is, however, another weed which has slowly been making serious inroads on farms. This weed is the Field Bindweed or Creeping Jenny. Each of the five Community Committees viewed the spread of it with great alarm. All went on record with recommendations that the campaign to stop its spread become a definite part of the agricultural extension program of the county.

Two control recommendations were suggested by local committees. They are - (1) to make weed control a more definite part of the Federal Farm Program and to increase benefit payments where weed control is carried out according to an approved plan. (2) that a program of weed control be submitted to the County Board by the County Agricultural Committee and that county aid be provided to carry it out. There was some difference of opinion as to the extent of this aid, but all committees agreed that in no case should such aid exceed more than one-half the actual cost involved excluding labor.

Another weed that is causing untold losses to Washington County farmers is wild mustard. It was recommended at various community meetings that mustard control work should also be made a part of the Agricultural program. Recommendations were received at community committee meetings that weed control work be entrusted to a County Weed Commissioner who would direct and supervise the work of the present system of township, village, and city weed commissioners. It was felt that a more uniform enforcement of the weed law would be secured in this way, and that it would eliminate the unpleasant task of enforcing the weed law in the immediate neighborhood by the local weed commissioner.

THE EUROPEAN CORN BORER:

During the past few years the European Corn Borer has spread into twenty-two Wisconsin Counties including Washington County. Much of the rapid spread of the corn borer westward in Wisconsin is due to the lack of an understanding of the life habits of this insect by the farmer.

The members of the Land Use Planning project are fully aware of the loss to Washington County agriculture which would result from a widespread infestation of the corn borer. It was their suggestion that farmers be given further information regarding the life habits, the possible damage, and the loss which this insect could cause. The recommendation was made that the seriousness of the corn borer problem be called to the attention of all farmers, and that control measures, consisting of clean tillage, and the burning of fence land as well as other refuse and stubble on and near corn fields be stressed by the County Extension Department.
CASH CROPS:

Each Community Committee discussed what cash crops should be encouraged and which ones discouraged in their locality. The conclusion invariably was that the production of white clover seed be encouraged. In past years this crop together with potatoes comprised the leading cash crops in the county. It has already been explained in this report that the production of white clover seed has dropped off appreciably because of the difficulty of obtaining a stand due to droughts and decreased soil fertility. Also the number of farms that can grow pure white clover seed has been greatly decreased because of mixtures with alsike clover, which like white clover, grows natural in Washington County soils.

Potatoes as a cash crop have been more extensively grown than any other crop with the possible exception of barley. In recent years this crop has met with a number of reverses, particularly disease problems. It was, however, thought that in sub-area B-1, which is well adapted to potato growing, the present acreage could profitably be increased. In other parts of the county other crops might be substituted for potatoes.

Further recommendations for cash crops were as follows-

Red beets and carrots for canning purposes should be encouraged as cash crops in those localities where there is an abundance of peat and muck soil and where the cost of hauling the products to the canning factories is not excessive. The same can be said of sweet corn and tomatoes planted for canning purposes.

It was the opinion of many that the more adapted soils of sub-area B-1 grow more vegetables for the metropolitan markets. This change to vegetable growing is to be done only as fast as the market can absorb the products.

Since Washington County is distinctly a dairy county and as such it must grow many acres of alfalfa and other conserving crops. These crops are hosts to an insect, the pea louse, which has greatly handicapped the pea canning industry. It was thought that many of the acres formerly devoted to the growing of canning peas could be utilized in the growing of sugar beets, a crop well adapted to the soil and climatic conditions of the county. This is also a crop which in past years has not been overburdened with surpluses.

It was recommended that more apples and other adapted tree fruits be grown in the B-1 and B-3 sub-areas. Also that the growing of bush fruits and berries be encouraged on possibly subsistence farms near Hartford or West Bend.

It was the consensus of opinion of the Community Committees that the percentage of crop land that may profitably be planted to cash crops range from 3.5 percent to 7.5 percent depending on the soil type and soil fertility.
Also that sub-area E-1 may plant the maximum percentage to cash crops while other sub-areas as E-6 should not plant more than 3.5 percent of its crop land to cash crops.

CERTIFIED AND REGISTERED SEED GRAINS:

Of the approximate 2,850 farmers in the County less than one-half of one percent plant officially certified or registered seed grains of barley, oats and other small grains. There is no doubt but that much of the seed grain planted is high enough in quality to permit its certification or registration. It is common knowledge that certified and registered seed grain is superior in value to common seed stocks insofar as it produces higher yields, has stiffer straw, and germinates better. For these reasons it was recommended that farmers give more attention to the seed stock used and that the planting of improved seed of grain and corn be strongly recommended through the activities of the County Extension office and other Federal agricultural agencies operating within the county.

Community Committee farmers, and local seed dealers estimate that more than 60 percent of the corn acres of Washington County are planted to hybrid corn. At present the county has but one producer of Hybrid seed corn and six other farmers who grow one-half acre or less Hybrid seed corn for their own use.

It was the recommendation of the Community Committee that more farmers be encouraged to produce certified, registered and hybrid seeds. This is to be done not with a view of offering competition to out-of-county seed producers, but rather to help encourage more county farmers to plant their fields with this better type of seed stock.

DRAINAGE:

The surface water of Washington County empties into five natural river basins. The two which offer natural drainage to the greater portion of the county are the Milwaukee River which receives the surface drainage of the eastern area of the county, and the Rock River which provides surface drainage for the northwestern portion. The Rubicon, Oconomowoc, and Menomonee Rivers provide natural drainage to the southern and southwestern part of the county.

Two drainage districts, one in Jackson township and one in Germantown township, offer drainage outlets for the peat area of the southeastern portion of the county.

The question of the further drainage of the low areas of the five communities was discussed by all community committees. Opinion was unanimously voiced against possible drainage proposals. The reason for this opinion was to conserve the present level of the water table and also to discourage the clearing of new land in the face of present agricultural surpluses.
SOIL EROSION PROBLEM:

It was estimated by County and Community Committee members that 60,000 acres or 25 percent of the crop land in Washington County is subject to erosion in varying degrees. Severe erosion problems are present in 20,000 acres or one-third of the roughest land of the county. These acres should receive erosion control management. The extent of such management to depend upon the extent of the erosion problem present.

There are five factors which largely determine the amount of erosion losses which may take place on a given soil. These are:

1. The type of vegetative covering on the land. Soil protected by thick growing cover crops is much less subject to erosion than soil planted to intertilled crops.

2. The amount of erosion from a given field varies directly with the length of the slope. Other things being equal, longer slopes suffer greater erosion damage per unit area than do shorter slopes.

3. Just as the length of the slope increases soil erosion, so does the steepness of the slope. The steeper the slope, the more washing takes place.

4. The soil type influences the amount of erosion. Silt loams erode more easily than do clay loams.

5. Intense rains cause more soil erosion than do more gentle rains.

The County Agricultural Agent with Mr. O.R. Zeasman, Soil Erosion Specialist, Wisconsin College of Agriculture, made a preliminary survey of the more hilly regions of Washington County for the purpose of determining the need and the extent of soil erosion management. The results of this survey were presented to the various community committees. This information largely formed the background for the recommendations made by these committees.

The Community Committees of sub-areas C-1, C-2, E-3, E-4, E-6, and E-7, felt that there was a definite need for soil erosion management in their respective localities. It was recommended that farmers be given more information regarding strip cropping and sodded waterways. By strip cropping is meant the alternating of deep rooted crops like the grasses and shallow rooted crops like corn and the grain crops.

It was further suggested that for the time being contour cropping systems be established on a few of the more lengthy slopes to serve as experimental demonstrations.

The opinion was expressed that the introduction of tractor
power increased soil erosion because many of the old sodded waterways were now being plowed.

It was the recommendation that water runways be seeded and kept in a sodded condition. This principle of erosion control is inexpensive and can be carried out on all farms requiring it.

Since soil erosion control practices are new to Washington County farmers it was suggested that the County Agricultural Extension office cooperate with the Wisconsin College of Agriculture and Soil Conservation Service in making a preliminary survey in determining the best workable plan to be followed in controlling the soil erosion problem. This plan is to be presented to the County Agricultural Committee who, if they approve of it, present it to the County Board of Supervisors.

SOIL MANAGEMENT:

In the formation of the soils of Washington County the Miami and the Clyde clay loams predominate. The early settlers, were largely subsistence and cash crop farmers. Wheat was the cash crop most extensively grown during the middle years of the nineteenth century. At about this time it was noticed that the fertility of the soil was decreasing. This and other factors such as insect problems caused the type of agriculture to change to dairying. This system of farming helped maintain a more stable soil fertility and proved more profitable.

Up to about five years ago little if any commercial fertilizer was used by Washington County farmers. The farm management practices of dairy farming were depended upon to maintain the soil fertility. The purchase of commercial feeds to supplement those grown upon the farm was expected to help maintain a fairly good equilibrium between the fertility taken from the soil in the crops harvested and sold for cash and that returned to the soil. Even the system of dairy farming failed to return as much fertility to the soil as was taken from it by growing crops and a gradual lowering of the fertility manifested itself in decreased crop yields. Threshermen were among the first to notice this. Some of these say that the soil of today produces from ten to twenty less bushels of oats and from seven to fifteen less bushels of barley per acre than did crops thirty to forty years ago.

More than 3,500 samples of soil, taken from 540 farms, from every township of Washington County have been tested during the past 13 months by our W.P.A. soil testing service. The average of these tests show that 37 percent of the soils of Washington County are acid, and that 79 percent is deficient in available phosphorus. An additional 32 percent of the samples tested were below the minimum available potash requirement as set forth by the Department of Soils of the Wisconsin College of Agriculture for good crop production.

To restore the fertility that the soils of the county
once had and to retain maximum crop production, it was recommended by the Community Committee that six soil management practices be followed. These practices are: (1) to use commercial fertilizers judiciously, particularly on cash crops such as barley, peas, beets and carrots. (2) to incorporate more organic matter into the soil by the growing of sweet clover, winter rye, and other green manure crops. (3) to practice strip cropping and contour farming in the more hilly areas and prevent the erosion and washing away of fertile land. (4) to increase the acreage of conserving crops as compared to the acreage of depleting crops. The amount of this increase for the county as a whole is to be determined by further study. This ratio of conserving and depleting crops to depend upon the fertility and quality of the land of the area in question. (5) the wise use of commercial fertilizer and lime in the preparation of the seed bed for grass and legume seedings. (6) since phosphorus is the element most needed in Washington County soil to bring about a balanced fertility, that the need for this plant food element be stressed in all county extension soil fertility programs.

DAIRY IMPROVEMENT:

Washington County is an intensive dairy county. It has more silos per farm than any other county in the state except one. It has in round numbers 127 milk cows per one-thousand acres of land. It ranks sixth in Wisconsin in the percentage of gross farm income from dairying. There are four active Dairy Herd Improvement Associations within the county. It was thought however that there is further opportunity for improving the dairy industry without increasing the number of milk cows.

It was recommended that such improvement be accomplished by -

a. The use of registered sires from dams producing 300 or more pounds of butterfat per year.

b. Through dairy herd production and butterfat records carried out on an extensive scale with the assistance of trained W.P.A. labor at a cost of about $1.00 per month per average farm.

c. Through the maintenance of active breed association of the predominating dairy breeds within the county. Such breed associations to encourage and foster the selection of dairy calves as 4-H projects.

d. By careful adherence to dairy sanitation and disease control programs as recommended by the Wisconsin College of Agriculture and the State Veterinarian's office.
SHEEP HUSBANDRY:

Washington County farmers are receiving less than one-half of one percent of their farm income from sheep and wool. This figure is among the lowest for Wisconsin counties.

Community Committee members have recommended increases of conserving crops on the rougher land of the county. This increase in conserving crops will result in either a greater production of forage feed or a greater amount of legume seed.

Instead of recommending increases in dairying to consume this greater production of forage feed the County Committee has recommended that some of the rougher land be utilized for the grazing of sheep. Sheep production is an excellent way of further diversifying farm income as there is relatively little extra equipment, labor and care required for handling a farm flock.

BEEKEEPING:

Increases in alsike, white and sweet clover seed production have already been recommended for several areas. Since the blossoms of these plants yield a nectar that produces what is regarded as a very fine quality honey it has been suggested that a substantial increase in the number of colonies of bees would be a desirable land use in conjunction with increased legume acreage.

Profitable honey production however demands special equipment and knowledge and it is not advisable to make this a general recommendation. However, increases in numbers of colonies by present beekeepers are to be encouraged when increases in legume seed production warrant.

It was suggested that the County Extension Department study these recommendations and apply them in the Agricultural program of the county.

BIRD CONSERVATION:

Most people are not aware of the extent that the use of farm machinery destroys upland bird nests and young bird life, particularly game birds. Birds which nest on uplands often show a preference for nesting in crops adjacent to fence rows, field edges, woods or marshes. The growth here is usually the most abundant and offers added protection from enemies.

Crops often are harvested before the eggs are hatched or the young is mature enough to protect itself from dangers. The ruthless harvesting of crops in fields where quail, partridge, pheasant, grouse, prairie chicken and other game birds hatch their eggs and rear their young destroys countless numbers of them. Farmers can cooperate in conserving wild life by adopting modified
farm practices when harvesting crops in these areas. For example when harvesting grain or moving hay in fields bordered by favorable nesting grounds, the farmer can safeguard many nests and give game an opportunity to get into cover without injury by using a flushing bar. Such flushing bars can be readily made by the farmer and at a very small cost. The flushing bar will cause the birds to scatter or fly from the nest. With this warning the farmer can stop the machine and locate hidden nests. He can then raise the sickle and leave a cover over and around the nest. This practice will do much to reestablish upland game birds, particularly in such areas where their increase is a desired land use.

RURAL EDUCATION

The Wisconsin policy of maintaining a school within walking distance of every rural child has resulted in the maintenance of a large number of extremely small schools. Washington County has a very definite small rural school problem. Thirty-four schools have an enrollment of twelve pupils or less. This is due to two facts - 1st, a parochial school system is well established within the county, and 2nd, the growing tendency to have smaller families.

The solution of this problem lies wholly within the hands of the rural districts. The "small" school law which was enacted by the 1939 state legislature will have a tendency to solve this problem in part at least. However, only four schools were closed during 1940. What to do with the small schools is a problem that must be faced by the school districts of this county. A further study of this problem is recommended. This study to be made by the administrative and educational authorities of the county.

Addison and Wayne townships are located about equal distances between Hartford and West Bend cities. Secondary school attendance of the children of these two townships is about equally divided between the High Schools of the above two mentioned cities. The problem of transporting these children to High School is one of grave concern to the parents. As a result of this transportation problem many children are unable to go on to High School.

It was the recommendation of the Addison and Wayne Community Committee that further study be made of the possibility of establishing a Junior High School in or near the village of Allenton which is almost centrally located. Such study to be made by interested people of the two respective townships. It was their belief that the establishment of a local Junior High School would result in more children continuing school after they had completed the elementary grades.
AMERICAN YOUTH HOSTELS

Youth Hostels have become increasingly popular with young people who enjoy nature and who have only a limited amount of money to spend for vacations. A youth hostel route from Milwaukee leading northward through the scenic Kettle Moraine region of Washington County has already been proposed by the local Youth Hostel Committee. No definite action has been taken to lay out and establish this route.

Since sub-areas C-1 and C-2 abound in natural scenic resources, it was recommended by the County Committee that a Youth Hostel route be so located to traverse these sub-areas with a hostelry in each of them. Roads leading to and from these sub-areas as well as the distance between them meet with the youth hostel requirements. That is, these highways are largely graveled roads or roads which are surfaced with tar so as to eliminate the dust element. Such roads are good for needed motor travel, but do not usually carry a heavy motor vehicle load. They are satisfactory for foot or bicycle travel which is the mode of transportation of most youth hostel travelers.

This recommendation is to be referred to the County Youth Hostel Committee.

4-H CLUB ORGANIZATIONS

A discussion of the growth and development of the 4-H Clubs of Washington County has already been included in this report. During the years 1936 to 1940 the 4-H movement in Washington County began to expand because of added leadership. Each of the five communities into which the county was divided for this study has within its borders several active clubs. The area surrounding West Bend, the County Seat, has more 4-H organizations than more distant communities.

Formerly the County Fair Grounds were located at West Bend. This location may have encouraged many of the young people of this area to participate in 4-H club activities. In 1938, the management of the Washington County Fair transferred it to the County Board of Supervisors. A new site, near the village of Slinger has been selected for holding the fair. This is quite centrally located within the county and should inspire a stronger club spirit in the southern and western parts of the county.

Both County and Community Committee members viewed the 4-H movement as a worthy land use and strongly recommended its continuance on a year round basis.
<table>
<thead>
<tr>
<th>ITEMS</th>
<th>COUNTY AVERAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of Present Cultivated Crop-land to be continued in cultivation</td>
<td>95.4%</td>
</tr>
<tr>
<td>Approximate number of acres of land in the area to be continued in cultivation</td>
<td>2,443,360</td>
</tr>
<tr>
<td>Percentage of Recommended Cultivated Acreage to be in:</td>
<td></td>
</tr>
<tr>
<td>1. Intertilled crops</td>
<td>22%</td>
</tr>
<tr>
<td>2. Small grains and other close grown crops</td>
<td>30%</td>
</tr>
<tr>
<td>3. Grass and hay crops</td>
<td>48%</td>
</tr>
<tr>
<td>Percentage of Recommended Cultivated Cropland Acreage Needing Soil Conserving Practices:</td>
<td></td>
</tr>
<tr>
<td>1. Lime application</td>
<td>30%</td>
</tr>
<tr>
<td>2. Phosphate Fertilizer application</td>
<td>60%</td>
</tr>
<tr>
<td>3. Potash Fertilizer application</td>
<td>20%</td>
</tr>
<tr>
<td>4. Strip Cropping</td>
<td>20%</td>
</tr>
<tr>
<td>5. Contour Cultivation</td>
<td>4%</td>
</tr>
<tr>
<td>6. Terracing</td>
<td>1%</td>
</tr>
<tr>
<td>7. Winter cover crop for green manure</td>
<td>5%</td>
</tr>
<tr>
<td>8. Summer cover crop for green manure</td>
<td>2%</td>
</tr>
<tr>
<td>Approximate Acreage Recommended for Pasture</td>
<td>20,000</td>
</tr>
<tr>
<td>Percentage of Recommended Pasture Acreages Needing Soil Conserving Practices:</td>
<td></td>
</tr>
<tr>
<td>1. Lime application</td>
<td>20%</td>
</tr>
<tr>
<td>2. Phosphate application</td>
<td>60%</td>
</tr>
<tr>
<td>3. Potash application</td>
<td>10%</td>
</tr>
<tr>
<td>4. Reseeding</td>
<td>25%</td>
</tr>
</tbody>
</table>
SUMMARY OF RECOMMENDATIONS
OF THE
WASHINGTON COUNTY LAND USE PLANNING COMMITTEE

1. FARM PURCHASE FOR TENANTS

There are many worthy farm families in Washington County who would become good farmers if given ample start in farming. It is recommended that the Bankhead-Jones Farm Tenant Purchase Plan be encouraged. That Washington County farm tenants only be considered for Washington County farms so purchased and further, that a minimum of three families be aided through this program annually.

2. FARM TENANCY

Short term farm leases do not always result in the best farm management policies by tenant farmers because of their indefinite stay upon a given farm. It is recommended that farm leases be written for a period of 3 to 5 years for tenants who have proved satisfactory. It was further suggested that the College of Agriculture assist in working out satisfactory long time lease plans.

3. CEDAR LAKE RESORT AREA

Cedar Lake is gradually filling up because of soil erosion and weed deposits at a rate which if continued will in a limited number of years mar the utility and beauty of the lake as a natural resource. Since consideration of the problem is of county-wide concern, it is recommended that this be called to the attention of the County Board and the State Rivers and Streams Commission at Madison for further consideration and action.

4. HIGHWAY BEAUTIFICATION

State Trunk Highway 144 follows along the southwest shore of Cedar Lake. Summer cottages are being erected along this road and they obstruct the view of the lake and other scenery. It is recommended that the area between the highway and the lake shore be restricted in order to prohibit the erection of buildings. It is further suggested that the Washington County Park Board be advised of this proposal.

Tree planting along the public right-of-way and at highway intersections can be effectively used to beautify
many miles of the public road. It is recommended that such beautification work be done by W.P.A. labor and under the direction of the political subdivision maintaining the highway.

5. LIVING SNOW FENCES

Because of the daily year round need of our roads, snow removal becomes a major highway maintenance expense. It is recommended that a minimum of 3 miles of living snow fence be planted annually where land adjoining the public highway may be acquired for a reasonable financial consideration and that such planting be done by the political subdivision maintaining the highway and for an indefinite period of time.

6. FARM WOODLOT MANAGEMENT

Much land in Washington County is not suited for agricultural use. It is recommended that such land be reforested. It is further recommended that approved reforestation practices be continued as a provision of the agricultural conservation program of the A.A.A.

7. WILD LIFE FEEDING

The Wisconsin Conservation Department usually distributes feed during winter months for pheasants and other forms of wild life. To avoid the possible use of commercial feeds which might contain noxious weed seeds and because of the present big surplus of farm feeds, it is recommended that only farm grains of a reasonable degree of purity be purchased for this purpose.

8. THE RELATIONSHIP OF THE SIZE OF THE MORTGAGE TO THE TOTAL INVESTMENT

Many renters and young farmers purchase farms without adequate funds with which to make ample down payment. In past years many such farms have been foreclosed. It is recommended that prospective farm buyers refrain from buying farms if the total debt load exceeds approximately 60 percent of the investment. This percentage will depend somewhat on the industriousness and managerial ability of the farmer.

9. FARM TENANCY AND MORTGAGE INDEBTEDNESS

It is recommended that a copy of these farm recommendations covering tenancy and mortgage indebtedness
be furnished to all banks, loaning agencies, attorneys and others interested in any phase of this work in the county.

10. RELATIONSHIP OF SIZE OF FARM AND PERSONAL PROPERTY LOAD

Mechanized agriculture is increasing within the county. The increased use of farm machinery has made the personal property load excessive, particularly for the small farms. Additional study should be made of the farm machinery problem for both large and small farms, particularly with reference to cost and upkeep. It is proposed that this study be made by the College of Agriculture and that this entire problem be more forcibly brought to the attention of farm machinery manufacturers.

11. INTEREST RATES

It is recommended that the Federal Land Bank and other Federal Loaning Agencies reduce the cost of applying for a loan. Furthermore, if the loan is denied that one-half of the application fee be returned. Also, that any investment in loan association stock as a requirement for obtaining a loan be eliminated.

12. WEED CONTROL

Noxious weeds particularly the Field Bindweed and Creeping Jenny have been making serious inroads in Washington County and in many cases have materially lowered the value of farms. It is proposed -

(1) To make weed control a more definite part of the Federal Agricultural Conservation Program and to increase benefit payments where weed control is carried out according to an approved program.

(2) That a program of weed control be submitted to the County Board by the legal Agricultural Committee and that county aid be provided to carry out this program.

13. THE EUROPEAN CORN BORER

The spread westward of the European corn borer presents a serious menace to the agriculture of Washington County. It is recommended that a more definite attempt by farmers should be made to control this insect. Also, that the County Extension Department and the State Department of Agriculture stress more vigorously a campaign
of educational and control measures on the corn borer.

14. CASH CROPS

White clover seed for many years has been one of the leading cash crops of Washington County. Its production has dropped off recently because of droughts and decreased soil fertility. It is the recommendation of the Community Committee in the communities formerly included in the white clover belt that fertility plots to demonstrate the value of phosphorus and potash rich fertilizers, to increase legume catches, be established by the County Extension Department.

Because of the nearness of Washington County to city markets, potatoes have for many years been an important cash crop. In recent years the acreage has declined due to disease problems and low yields. It is recommended that more acres of this crop be grown, particularly in sub-area E-1, and that the College of Agriculture continue further disease control work within the county.

Two acres of oats are now being grown for each acre of barley. Scientific studies show that barley produces 45 percent more pounds of nutrients per acre than oats under average conditions. It has been recommended that wherever soil conditions warrant, that a general shift from oats growing to barley growing be made until an equal acreage of the two crops be grown. The County Extension Department should encourage this practice among the farmers of the county.

15. CERTIFIED AND REGISTERED SEED GRAIN

Less than one percent of the farmers of the county grow certified or registered seeds of barley, oats, wheat, rye, and corn. In view of the importance of good seed stock for farm crops, it is recommended that the County Extension office encourage the growing of more improved seed stock.

16. DRAINAGE

In order to protect the underground water level, it is recommended as a basic principle that no new large areas of land be drained for agricultural purposes.

17. SOIL EROSION

More and more erosion is taking place every year in Washington County as is evidenced by the appearance of
subsoil on hillsides, by the formation of gullies, by the filling up of valuable streams and lakes with silt and weeds and by the difficulty of securing good yields of crops on some slopes. It is proposed that further surveys and studies of the soil erosion problem be made and that a limited number of erosion control demonstrations be set up. Further, that the County Agricultural Extension office cooperate with the Wisconsin College of Agriculture and Soil Conservation Service in making a preliminary survey in determining the best workable plan to be followed in controlling this problem. This plan is to be presented to the County Agricultural Committee for further consideration.

18. SOIL MANAGEMENT

Results of an extensive soil testing program in Washington County indicate that 79 percent of the soil is deficient in available phosphorous, 32 percent is deficient in available potash and 37 percent of the soil requires lime. It has been recommended that a more extensive program of soil improvement than is even now being carried out by the County Extension Department be adopted. The recommended practices proposed are as follows:

(1) This program should include a continued close cooperation between the Extension Department's soil testing and lime grinding projects and the A.A.A. soil building payments.

(2) That the A.A.A. furnish annually at cost, superphosphate and potash fertilizers to be used on conserving crops for the purpose of replenishing deficient phosphate and potash supplies. It was the consensus of opinion that the use of superphosphate fertilizers be stressed most.

(3) And that the A.A.A. program continue to emphasize sound soil conservation principles.

(4) That the conserving acreage be increased as is elsewhere specifically mentioned in this report.

19. DAIRY IMPROVEMENT

Washington County is an intensive dairy area. There is much need for increasing the producing ability of dairy cattle, thereby raising the farmers income without materially increasing his farm operating expense. It is recommended that dairy herd improvement work
according to the following suggestions be encouraged.

a. Through the use of registered sires from dams producing 300 or more pounds of butterfat per year.

b. Through dairy herd production and butterfat records carried out on an extensive scale with the assistance of trained WPA labor at a cost of about $1.00 per month per average farm.

c. Through the maintenance of active breed associations of the predominating dairy breeds within the county. Such breed association to encourage and foster the selection of dairy calves as 4-H projects.

d. By careful adherence to dairy sanitation and disease control programs as recommended by the Wisconsin College of Agriculture.

That the County Extension Office stress such dairy herd improvement as a part of its annual program of work.

20. LIVESTOCK RECOMMENDATION

Washington County receives less than 1 percent of its income from sheep. Increasing conserving crop acreage on the more hilly and rough land will result in more feed being available for livestock. Since sheep are well adapted to feed on rough and hilly land, it is recommended that some of this additional land be used to diversify the income by increasing the number of sheep.

21. BEES AND HONEY

Because of increased legume acreage, ample nectar for honey bees will be available. It is recommended that more colonies of bees be kept both for the pollination of legumes and for the production of honey.

22. RURAL EDUCATION

Washington County has 34 schools with an enrollment of 12 pupils or less. These small schools present a problem from the taxpayers view point as well as from the school administrative viewpoint. The committee recommends that a further study be made of the small school problem in order to determine the most desirable policy affecting them. This study should be made by local school boards and other educational authorities.
23. SECONDARY EDUCATION

Addison and Wayne townships because of their distance from neighboring high schools feel that their children are handicapped by lack of secondary school opportunities. It is proposed that a study be made by local committees of the advisability of establishing a Junior high school at some central point in the two townships concerned. It is recommended that the personnel of the necessary committees be appointed by the local authorities.

24. COUNTY PARKS

It is recommended that small isolated tracts of land which are desirable for recreational and wildlife purposes be purchased and developed for park purposes by the County Park Commission as they are needed.

25. YOUTH HOSTEL CAMPS

It is recommended that the committee responsible for Youth Hostel Camps in Washington County take appropriate action towards the establishment of a minimum of two such camps in this county.

26. BIRD CONSERVATION

It was recommended that the County Extension Department furnish information to farmers regarding the use of a flushing bar to be used in connection with mowing and harvesting machinery. The use of a flushing bar would prevent the unwarranted destruction of large numbers of upland game birds during the harvesting of hay and grain crops.

AREA RECOMMENDATIONS

Class B Land

Twelve hundred acres of land were classified as B land. It was the general recommendation that this land be continued as forest land. To replenish decreasing timber growth, reforestation with adapted seedlings has been suggested.
Class C Land

Sub-Area C-1

The land of sub-area C-1 is less than 50 percent tillable. The remaining land is in permanent pasture and woodland. The seven lakes and the scenic morainic hills and knolls contained within the area make it adapted for year round recreational use. It is recommended that this area be set aside as a recreational center, and the Washington County Park Board give this area study and consideration as a possible recreational site.

Sub-Area C-2

Like sub-area C-1, C-2 is better suited for recreational purposes than for agricultural land. It is the recommendation that this sub-area be made a part of Mauthe Lake State Park. It was suggested that this recommendation be called to the attention of the State Conservation Department.

Class E Land

Sub-Area E-1

The soils of this sub-area represent a wide range of adaptability for crop production. It has been recommended that crops be grown which will give a higher net return than that obtained on less adaptable land further from the Metropolitan markets. It is suggested that— (1) More truck and cash crops be grown. (2) More fruit such as apples be produced. (3) Equal acreages of oats and barley be raised. (4) That 40% of the cultivated land be in a soil conserving crop. (5) That poultry production be increased.

Sub-Area E-2

Prior to 1920 this sub area was the largest producer of white clover seed in the United States. It is recommended that the farmers in this area cooperate with the Extension Department and the triple A farm program in soil testing, liming and fertilizing in order to increase the possibility of securing good "catches" of white clover and again becoming a white clover seed producing center. Other recommendations for this area are as follows:

1. That all arable land be in a soil conserving crop two years out of five.

2. That production of adapted fruits such as apples be increased to a point where local demands are supplied by home production.

3. That equal acreages of barley and oats be grown.
4. That adapted lowland areas be utilized for the production of carrots as a cash crop.

Sub-Area E-3

Sub-area E-3 represents a transitional area between sub-area E-6 and sub-area E-1 or E-2. Since this area is transitional many of the recommendations for these other areas may also be applied here wherever the topography and soil conditions warrant.

In addition it is recommended that farmers living along U. S. Highway 41 in this area utilize their location for the purpose of direct selling, by means of roadside markets, some of their farm produce during the summer months. Items suggested were fresh eggs, vegetables, fruit, home made preserves and honey. Some farm families may further utilize their location on this heavily traveled highway by providing overnight guest rooms or cabins for tourists.

Since this area is definitely low in hog production an increase in this enterprise is recommended to a point where most of the farm meat supply may be produced on each farm.

Sub-Area E-4

Recommendations:

(1) Because of evidence of erosion damage recommendations were made for a system of farm management which includes strip cropping or a modified form of this practice and in some cases contour farming. (2) Soil conserving and soil depleting crop ratio should be divided on a 50-50 basis varying among individual farms according to the topography. (3) Encourage the increasing use of grass silage.

Sub-Area E-5

Recommendations for this sub-area were as follows:

(1) A general shift from oats to barley on the heavier soil until 40 percent of the grain planted is barley. (2) Production of more legume seeds since this area is now quite high in percent of conserving crops. (3) Increase in cash crops particularly potatoes and sweet corn wherever soil conditions warrant.

Sub-Area E-6

This includes most of the land which is regarded as being a part of the Kettle Moraine.
Recommendations for this area are as follows:

1. Ten to fifteen percent of the cultivated land in this area should be strip cropped.

2. Soil conserving–soil depleting ratio should be 55–45 percent respectively.


4. Three and a half percent is the maximum amount of crop land to be devoted to cash crops.

Sub-Area E-7

This sub-area is made up largely of poorly drained swamp and marsh soils of the light and shallow peat type lying in the Rock River Valley and flanked on each side by rough topography.

The recommendations for this area are as follows:

(a) For the swampy area not now cultivated—that the farmers in this area cooperate with the Wisconsin Conservation Commission in restocking and feeding the wild game in this area, particularly pheasants. In return for the farmers extra work and trouble they could sell hunting privileges on their farms.

(b) For the poorly drained area now cultivated—seed this land into canary grass and harvest it by either pasturing, cutting it for hay or green silage, or both for hay and seed.

(c) For the rough hilly land of this area now cultivated—Practice a six year rotation using a cultivated crop one year, a grain nurse crop one year and remaining four years conserving crops with the production of legume seed crops as one of the principal objectives. Some form of erosion control is necessary on practically all of this land and a further study of this problem should be made by the College and Soil Conservation Service.

Sub-Area E-8

This area includes for the most part light sandy soil subject to wind erosion and drought.

Recommendations were as follows:

1. Special emphasis to be given the use of green manures crops such as sweet clover or rye. (2) Practice a five year rotation with a conserving-depleting ratio on a 40–60 basis respectively. (3) Potatoes to be grown as the main cash crop.
<table>
<thead>
<tr>
<th>Township</th>
<th>Farm Acres Average Size</th>
<th>Farm Crop Acres</th>
<th>Milk Cows Per Farm</th>
<th>Total Acres Per Milk Cow</th>
<th>Crop Acres Per Milk Cow</th>
<th>No. of Laying Hens &amp; Pullets</th>
<th>Brood Sows Per Farm</th>
<th>% of Farm Tenancy</th>
<th>Average Assessed Value Per Acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addison</td>
<td>98.2</td>
<td>67.2</td>
<td>12.4</td>
<td>7.9</td>
<td>5.4</td>
<td>58.4</td>
<td>1.84</td>
<td>19.7</td>
<td>53.15</td>
</tr>
<tr>
<td>Barton</td>
<td>94.0</td>
<td>60.0</td>
<td>9.9</td>
<td>9.5</td>
<td>6.1</td>
<td>61.2</td>
<td>1.11</td>
<td>20.0</td>
<td>47.00</td>
</tr>
<tr>
<td>Erin</td>
<td>108.4</td>
<td>65.5</td>
<td>12.1</td>
<td>9.0</td>
<td>5.4</td>
<td>48.2</td>
<td>0.83</td>
<td>42.8</td>
<td>40.36</td>
</tr>
<tr>
<td>Farmington</td>
<td>110.2</td>
<td>74.7</td>
<td>11.5</td>
<td>9.6</td>
<td>6.5</td>
<td>78.4</td>
<td>1.76</td>
<td>19.6</td>
<td>55.27</td>
</tr>
<tr>
<td>Germantown</td>
<td>70.3</td>
<td>50.2</td>
<td>11.0</td>
<td>6.4</td>
<td>4.6</td>
<td>56.8</td>
<td>0.36</td>
<td>24.1</td>
<td>76.45</td>
</tr>
<tr>
<td>Hartford</td>
<td>96.5</td>
<td>68.4</td>
<td>12.8</td>
<td>7.5</td>
<td>5.3</td>
<td>53.6</td>
<td>1.32</td>
<td>28.5</td>
<td>70.83</td>
</tr>
<tr>
<td>Jackson</td>
<td>88.7</td>
<td>60.0</td>
<td>10.8</td>
<td>8.2</td>
<td>5.6</td>
<td>75.5</td>
<td>0.71</td>
<td>17.1</td>
<td>63.23</td>
</tr>
<tr>
<td>Kewaskum</td>
<td>95.9</td>
<td>61.7</td>
<td>10.6</td>
<td>9.0</td>
<td>5.8</td>
<td>69.9</td>
<td>1.23</td>
<td>25.5</td>
<td>46.48</td>
</tr>
<tr>
<td>Polk</td>
<td>95.7</td>
<td>65.8</td>
<td>11.1</td>
<td>8.6</td>
<td>5.9</td>
<td>74.3</td>
<td>0.85</td>
<td>17.2</td>
<td>57.03</td>
</tr>
<tr>
<td>Richfield</td>
<td>97.0</td>
<td>63.4</td>
<td>11.0</td>
<td>8.8</td>
<td>5.8</td>
<td>47.7</td>
<td>0.46</td>
<td>26.9</td>
<td>51.69</td>
</tr>
<tr>
<td>Trenton</td>
<td>97.2</td>
<td>64.8</td>
<td>9.5</td>
<td>10.2</td>
<td>6.8</td>
<td>63.8</td>
<td>0.82</td>
<td>17.6</td>
<td>49.50</td>
</tr>
<tr>
<td>Wayne</td>
<td>114.7</td>
<td>73.0</td>
<td>11.5</td>
<td>10.0</td>
<td>6.3</td>
<td>76.8</td>
<td>1.93</td>
<td>16.7</td>
<td>59.72</td>
</tr>
<tr>
<td>West Bend</td>
<td>95.3</td>
<td>61.0</td>
<td>11.0</td>
<td>8.7</td>
<td>5.5</td>
<td>70.6</td>
<td>0.75</td>
<td>23.0</td>
<td>50.43</td>
</tr>
<tr>
<td>County Average</td>
<td>97.1</td>
<td>64.3</td>
<td>11.1</td>
<td>8.7</td>
<td>5.8</td>
<td>64.3</td>
<td>1.07</td>
<td>22.2</td>
<td>55.47</td>
</tr>
<tr>
<td>Township</td>
<td>Corn</td>
<td>Barley</td>
<td>Oats</td>
<td>All Grain</td>
<td>Cash Crops</td>
<td>Alfalfa</td>
<td>Clover</td>
<td>Total Hay &amp; Pasture</td>
<td>Potatoes</td>
</tr>
<tr>
<td>-------------</td>
<td>------</td>
<td>--------</td>
<td>------</td>
<td>-----------</td>
<td>------------</td>
<td>---------</td>
<td>--------</td>
<td>---------------------</td>
<td>----------</td>
</tr>
<tr>
<td>Addison</td>
<td>16</td>
<td>13</td>
<td>22</td>
<td>35.6</td>
<td>6.9</td>
<td>12.9</td>
<td>15.0</td>
<td>32.8</td>
<td>1.8</td>
</tr>
<tr>
<td>Barton</td>
<td>16</td>
<td>11</td>
<td>25</td>
<td>37.3</td>
<td>4.5</td>
<td>10.7</td>
<td>14.7</td>
<td>37.9</td>
<td>1.3</td>
</tr>
<tr>
<td>Erin</td>
<td>18</td>
<td>10</td>
<td>25</td>
<td>35.7</td>
<td>1.9</td>
<td>11.3</td>
<td>12.7</td>
<td>40.6</td>
<td>.3</td>
</tr>
<tr>
<td>Farmington</td>
<td>17</td>
<td>9</td>
<td>26</td>
<td>32.7</td>
<td>1.9</td>
<td>12.3</td>
<td>16.6</td>
<td>47.2</td>
<td>.9</td>
</tr>
<tr>
<td>Germantown</td>
<td>20</td>
<td>13</td>
<td>22</td>
<td>40.8</td>
<td>7.0</td>
<td>15.5</td>
<td>12.9</td>
<td>42.4</td>
<td>3.0</td>
</tr>
<tr>
<td>Hartford</td>
<td>19</td>
<td>15</td>
<td>23</td>
<td>38.4</td>
<td>4.2</td>
<td>12.9</td>
<td>12.3</td>
<td>36.8</td>
<td>.9</td>
</tr>
<tr>
<td>Jackson</td>
<td>19</td>
<td>15</td>
<td>16</td>
<td>31.8</td>
<td>5.7</td>
<td>13.3</td>
<td>11.0</td>
<td>38.4</td>
<td>2.3</td>
</tr>
<tr>
<td>Kewaskum</td>
<td>17</td>
<td>13</td>
<td>22</td>
<td>36.3</td>
<td>4.0</td>
<td>12.5</td>
<td>13.1</td>
<td>41.9</td>
<td>1.6</td>
</tr>
<tr>
<td>Polk</td>
<td>16</td>
<td>12</td>
<td>25</td>
<td>38.2</td>
<td>7.7</td>
<td>14.0</td>
<td>13.8</td>
<td>42.6</td>
<td>1.8</td>
</tr>
<tr>
<td>Richfield</td>
<td>17</td>
<td>11</td>
<td>24</td>
<td>36.1</td>
<td>3.4</td>
<td>11.2</td>
<td>12.3</td>
<td>36.4</td>
<td>1.7</td>
</tr>
<tr>
<td>Trenton</td>
<td>21</td>
<td>7</td>
<td>24</td>
<td>31.8</td>
<td>4.2</td>
<td>9.0</td>
<td>16.5</td>
<td>40.6</td>
<td>2.5</td>
</tr>
<tr>
<td>Wayne</td>
<td>16</td>
<td>13</td>
<td>22</td>
<td>35.7</td>
<td>5.1</td>
<td>14.4</td>
<td>12.3</td>
<td>40.7</td>
<td>2.1</td>
</tr>
<tr>
<td>West Bend</td>
<td>19</td>
<td>11</td>
<td>30</td>
<td>32.5</td>
<td>5.6</td>
<td>15.2</td>
<td>14.4</td>
<td>43.6</td>
<td>.8</td>
</tr>
<tr>
<td>County Average</td>
<td>17.7</td>
<td>12.2</td>
<td>23.5</td>
<td>35.8</td>
<td>4.8</td>
<td>12.7</td>
<td>13.7</td>
<td>40.2</td>
<td>1.6</td>
</tr>
<tr>
<td>Township</td>
<td>Tax Delinquent Farms</td>
<td>National Farm Loans</td>
<td>Production Credit Loans</td>
<td>Farm Security Loans</td>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>----------------------</td>
<td>---------------------</td>
<td>-------------------------</td>
<td>---------------------</td>
<td>-------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Addison</td>
<td>4</td>
<td>10</td>
<td>7</td>
<td>1</td>
<td>22</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barton</td>
<td>4</td>
<td>13</td>
<td>6</td>
<td>1</td>
<td>24</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Erin</td>
<td>28</td>
<td>28</td>
<td>20</td>
<td>4</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farmington</td>
<td>18</td>
<td>15</td>
<td>9</td>
<td>2</td>
<td>44</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Germantown</td>
<td>16</td>
<td>15</td>
<td>10</td>
<td>2</td>
<td>43</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hartford</td>
<td>11</td>
<td>14</td>
<td>8</td>
<td>1</td>
<td>34</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jackson</td>
<td>2</td>
<td>20</td>
<td>25</td>
<td>3</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kewanakum</td>
<td>10</td>
<td>8</td>
<td>4</td>
<td></td>
<td>22</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Folk</td>
<td>4</td>
<td>9</td>
<td>7</td>
<td>2</td>
<td>22</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Richfield</td>
<td>14</td>
<td>24</td>
<td>10</td>
<td></td>
<td>48</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trenton</td>
<td>8</td>
<td>16</td>
<td>10</td>
<td>1</td>
<td>35</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wayne</td>
<td>3</td>
<td>10</td>
<td>7</td>
<td></td>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>West Bend</td>
<td>2</td>
<td>8</td>
<td>6</td>
<td></td>
<td>16</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>124</strong></td>
<td><strong>190</strong></td>
<td><strong>129</strong></td>
<td><strong>17</strong></td>
<td><strong>460</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

III.
<table>
<thead>
<tr>
<th>Township</th>
<th>Tons of Lime Requested Per Acre</th>
<th>Available Phosphorus Per Acre in Lbs.</th>
<th>Available Potash Per Acre in Lbs.</th>
<th>No. of Samples</th>
<th>No. of Farms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addison</td>
<td>1.2</td>
<td>36</td>
<td>135</td>
<td>64</td>
<td>11</td>
</tr>
<tr>
<td>Barton</td>
<td>.2</td>
<td>56</td>
<td>197</td>
<td>60</td>
<td>10</td>
</tr>
<tr>
<td>Erin</td>
<td>1.4</td>
<td>51</td>
<td>144</td>
<td>56</td>
<td>8</td>
</tr>
<tr>
<td>Farmington</td>
<td>.2</td>
<td>34</td>
<td>177</td>
<td>37</td>
<td>7</td>
</tr>
<tr>
<td>Germantown</td>
<td>.5</td>
<td>36</td>
<td>152</td>
<td>104</td>
<td>17</td>
</tr>
<tr>
<td>Hartford</td>
<td>1.0</td>
<td>37</td>
<td>162</td>
<td>133</td>
<td>34</td>
</tr>
<tr>
<td>Jackson</td>
<td>.3</td>
<td>43</td>
<td>154</td>
<td>137</td>
<td>16</td>
</tr>
<tr>
<td>Jewaskum</td>
<td>.8</td>
<td>49</td>
<td>151</td>
<td>71</td>
<td>10</td>
</tr>
<tr>
<td>Folk</td>
<td>.6</td>
<td>37</td>
<td>137</td>
<td>77</td>
<td>13</td>
</tr>
<tr>
<td>Richfield</td>
<td>.6</td>
<td>36</td>
<td>159</td>
<td>64</td>
<td>14</td>
</tr>
<tr>
<td>Trenton</td>
<td>.2</td>
<td>30</td>
<td>160</td>
<td>137</td>
<td>25</td>
</tr>
<tr>
<td>Wayne</td>
<td>.3</td>
<td>45</td>
<td>183</td>
<td>63</td>
<td>10</td>
</tr>
<tr>
<td>West Bend</td>
<td>.2</td>
<td>48</td>
<td>181</td>
<td>80</td>
<td>20</td>
</tr>
<tr>
<td>County Average</td>
<td>.6</td>
<td>41</td>
<td>161</td>
<td>1083</td>
<td>195</td>
</tr>
</tbody>
</table>
Alfalfa Acreage
Washington County
1924-1939
Clover and Timothy Acreage
in
Washington County
1924-1939
Barley Acreage
in
Washington County
1924 - 1939

Acres
24,000
23,000
22,000
21,000
20,000
19,000
18,000
17,000
16,000
15,000
14,000
13,000
12,000
11,000
10,000
9,000
8,000
7,000
6,000

1924 '25 '26 '27 '28 '29 '30 '31 '32 '33 '34 '35 '36 '37 '38 '39

VII.
Pea Acreage in Washington County 1924 - 1939

Potato Acreage Washington County 1924 - 1939
Brood Sows
Washington County
1924-1939

Milk Cows
Washington County
1925-1939
Number of Laying Hens and Pullets in Washington County
1927 - 1939