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THE HISTORY OF THE ESTABLISHMENT AND DEVELOPMENT OF  
CONSERVATION IN YORK COUNTY, SOUTH CAROLINA

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A Thesis

Presented to

the Faculty of the Graduate School  
Appalachian State Teachers College

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In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

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by

Jean Wilkerson

August 1960

THE HISTORY OF THE ESTABLISHMENT AND DEVELOPMENT OF  
CONSERVATION IN YORK COUNTY, SOUTH CAROLINA

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## PREFACE

The purpose of this study is to give the history of the development of conservation in York County, South Carolina, from the 1930's to 1960. An attempt is also made to offer practical suggestions for improving the conservation program.

The chief sources of information are the records on file in the County conservation office, materials on file at the home of W. B. Wilkerson, Jr., personal interviews, and experience and observation of the writer, gained from having lived in the County during her formative years.

The writer expresses her sincere appreciation to those persons who assisted greatly in sharing information, especially to M. B. Brissie, Director of York County Conservation Department; W. B. Wilkerson, Jr., Chairman of Catawba Soil Conservation Department; Dr. T. S. Bue, Chief of South Carolina Soil Conservation Department; and to all who have aided in making this study possible. To mention each individual who has contributed would make up a very long list; however, the writer's sincere thanks go to the Advisory Committee, Dr. J. C. Yeder, Dr. John G. Barden, Dr. Clarence A. Carder, and Mr. Imre Sutton for the generous cooperation extended during the completion of this study.

J. Wilkerson

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## CHAPTER I

### THE PROBLEM AND DEFINITIONS OF TERMS USED

In earlier times man lived in the wilderness of nature and had little concern for the events of the future. We are told that in those days the land flowed with milk and honey. The forest with its abundance of wildlife and the unhurried streams flowing clear and teeming with fish, supported man's demands without being taxed. Nature was not challenged until man's increasing use of natural resources began to exert its pressures upon the plentifulness of the earth.

In the future the demand upon the resources of the earth will multiply to such an extent that it will be impossible to fulfill the needs of the existing population without the help and ingenuity of man in conserving and in using wisely the bounty of Mother Nature.

Thousands of acres of once fertile soil and abundant forest have been so spoiled by the plow and the ax that it will take hundreds of years to reclaim them for use. This in large measure is true of York County, South Carolina.

This county lies within an area known as the southern section of the Piedmont. The history of land uses



here clearly indicate that unwise farming practices and overexploitation of the forest have been carried on for generations. Few areas have been so manhandled as the Piedmont. Soil erosion occurs on practically every acre of slope-land, and the prevailing system of farming has not encouraged soil conservation. Hence nearly one-third of the Piedmont has lost 75 per cent or more of its topsoil. Over large areas crops are being grown on subsoil. Considerable land has been abandoned because it is submarginal and crops cannot be grown at a profit.<sup>1</sup>

The early settlers were not familiar with the types of climate and terrain found here and their lack of such knowledge led them to put into practice methods which led to the extensive erosion that characterizes this area. Perhaps necessity accounted for further misuse and exploitation. We can in no measure be definitely sure of all the factors that contributed to the severe erosion that has taken its toll of once productive land of this county, but the effects are evident. These effects will be discussed more fully in later chapters.

In 1934 and 1935 the first soil survey of the county on record was made and used as a basis for planning land-use and erosion control measures. Every farm was mapped by

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<sup>1</sup>C. Langdon White and Edwin J. Fescue, Regional Geography of Anglo-America (New York: Prentice-Hall, Inc., 1954), p. 115.

agricultural specialists and the survey showed that 98 per cent of the 48,076 acres suitable for cultivation ranged from slightly eroded to very severely eroded soils. Hardly one per cent of that total escaped erosion.<sup>2</sup>

Since 1935 interested farmers with the aid of federal, state, and county agencies have been able to improve by conservation measures a large number of these eroded acres. At the present time, a fairly high degree of productivity is being maintained but there still remains much to be done in rebuilding and conserving areas where little or no conservation practices have been put into effect.

I. THE PROBLEM

Statement of the Problem. It was the purpose of this study to determine what has been done in the field of conservation in York County, South Carolina, since the first program of this type was set up in the 1930's.

The writer has (1) investigated and identified the need for a conservation program; (2) traced the development of such a program; and (3) described the effects of conservation on the improved economy of the County.

Importance of the Study. A knowledge of past trends in the field of conservation is greatly needed to help foster

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<sup>2</sup>M. B. Brissie, Monograph of Fishing Creek Watershed Project (Rock Hill, South Carolina, 1939), p. 54.

a better program that will be effective in teaching the citizens of this County to appreciate and aid the agencies in maintaining sound practices in their future efforts in soil and water conservation.

Nature will continue to do her part in restoring her valuable assets, but her process is slow. Our great need is to recognize the problem and save the soil before it has been depleted and ruined for productive cultivation. The information gathered and recorded here may be of assistance in helping those who read this report better to appreciate the need for conservation, to support the present efforts to protect the land, and to promote an even better program in the future.

II. DEFINITIONS OF TERMS USED

Conservation. According to Timmons and Sauer,<sup>3</sup>

Conservation means the wise use of resources. It includes several elements: Economical output of goods and services from land and water in accordance with needs; the particular goods and services that people want; and a continued flow of products and services indefinitely into the future.

According to Eleazer,<sup>4</sup>

Conservation does not mean to hoard. It means to understand, to promote, to protect, and to use wisely.

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<sup>3</sup>John F. Timmons and Elmer L. Sauer, "The Wise Use of Our Resources," The Yearbook of Agriculture (Washington: Government Printing Office, 1958), p. 310.

<sup>4</sup>J. M. Eleazer, Our Land is Our Life (Columbia, South Carolina, R. L. Bryan Company, 1955), pp. 9-10.

Contouring. This consists of plowing, planting, cultivating, and harvesting sloping fields on the level, that is, farming on the contour, around hillsides with curving furrows and rows that fit the lay of the land, instead of with straight up-and-down-hill furrows. The curved furrows retard run-off of rain water and allow much of the rain water to soak into the ground. This conserves water and greatly reduces the amount of soil that is washed away.<sup>5</sup>

Stripcropping. This consists of planting strips of close-growing plants, like grass or clover, between strips of clean-tilled row crops on, or nearly on, the contour. The strips of close-growing crops retard run-off of rain, thus greatly decreasing the erosion on the clean-tilled strip below. They also strain out the soil picked up by run-off water from the plowed strips.<sup>6</sup>

Terrace. A terrace is a raised area of land with sloping sides. The inside area is constructed so as to form a channel for the purpose of carrying off excessive water. Terraces are safety valves, so to speak, in times of heavy rains. They move the surplus water slowly to an

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<sup>5</sup>Guy-Harold Smith, ed., Conservation of Natural Resources (New York: John Wiley and Sons, Inc., 1958), p. 81.

<sup>6</sup>Ibid., pp. 81-82.

outlet, thus preventing the formation of gullies and excessive sheet erosion. After the Civil War and up to the nineteen hundreds, bench type terraces were built with pick and shovel; these had broad bases and rather flat tops.

Erosion. Erosion is the wearing away of the earth's surface by transport of soil through the action of moving water, wind, or other geological agents.

Leaching. Leaching is the act of draining away those mineral elements which dissolve in water. Some leaching is inevitable, but it is increased by practices which leave the land bare throughout much of the year. It can be retarded by growing grass and cover crops.<sup>7</sup>

Reforestation. Reforestation is the process whereby acres of once productive woodlands are replanted with trees that are suited to the particular type of soils and climate. In most instances, the remaining trees that have continued to grow in these areas have been found to be of little value and are killed by scientific methods so as to allow adequate sunlight and space for new plantings.

Watershed. A watershed is the whole region which

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<sup>7</sup>C. Langdon White and Edwin J. Foscue, Regional Geography of Anglo-America (New York: Prentice-Hall Inc., 1954), p. 115.

contributes to the water supply and drainage of a single river, made up of headwaters and lower courses, etc.<sup>8</sup>

Cane. The stem of certain palms, grasses, and other plants, as the bamboo, sugar cane, rattan, etc.<sup>9</sup>

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<sup>8</sup>David Cushman Coyle, Conservation (New Brunswick, New Jersey: Rutgers University Press, 1957), pp. 131-132.

<sup>9</sup>"Cane," Webster's New Standard Dictionary, p. 154.

## CHAPTER II

### REVIEW OF THE LITERATURE

Because of the vast importance of the problem of soil conservation there has been much time and energy spent by scientists, agricultural specialists, and others in the field of research. Literally thousands have been employed in more recent years in an attempt to remedy the problems that face the nation in connection with this problem. Many books, pamphlets, and other materials have been compiled and edited by specialists in the hope of educating the public to what has been and is taking place.

In the words of a noted soil conservationist, H. H. Bennett, "Productive land is our base. Everything we do, everything we share, even whatever we amount to as a great and enduring people, begins with and rests on the sustained productivity of our agricultural land."<sup>1</sup>

Other observers have pointed out, "Fifty million acres of once fertile cropland have been ruined for any further practical cultivation. Much of this is now abandoned. Another fifty million acres is well on the road toward abandonment and on a second hundred million acres of cropland we have permitted erosion to

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<sup>1</sup>The Hugh Bennett Lectures, as given at North Carolina State College, Raleigh, June, 1959 (The Agricultural Foundation, Inc., 1959), p. 46.

peel off from 25 to 75 per cent of the topsoil. Two hundred million acres ruined for further cultivation, severely damaged or seriously impaired, is a lot of land. If used properly, it is enough to support 60 million people." <sup>2</sup>

The South is the greatest sufferer. Why? First of all, much of the surface of the South is rolling. Because of the "open winters," the precipitation is in the form of rain. Many of the rains are torrential. The ground is frozen for only a few weeks each year even in the northern part of the upper South, and as far north as Tennessee, for only a few days each year, in the southernmost part, rarely, if ever. Soil wash and erosion may, therefore, go unrestricted, as far as nature is involved, when once the forests and brush cover are removed. In many of the agricultural regions, particularly in the cotton and corn belt, much of the ground is bare throughout the year. Few farmers provide a winter cover crop, and even though cultivation keeps the surface well mulched during a crop season, heavy rains cause much surface wash. The amount of wash is closely related to the slope.<sup>3</sup>

The former United States Bureau of Chemistry and Soils reported in 1925 that Fairfield County, South Carolina,

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<sup>2</sup>National and Sectional Religious Organizations, The Lord's Land (Chicago: Sears-Roebuck Foundation, 1958), p. 14.

<sup>3</sup>W. T. Couch, Culture in the South (Chapel Hill: The University of North Carolina Press, 1935), p. 75.



had lost 90,000 acres of productive land from soil erosion. The same story may be told of a large part of the Piedmont, particularly those sections near the large rivers.<sup>4</sup>

A drastic change has occurred since our forefathers observed this land so rich in natural resources. In 1584 Captain Arthur Barlowe was prompted to write Sir Walter Raleigh the following: "The soile is the most plentiful, sweete, fruitful and wholesome of all the worlde." (sic)<sup>5</sup>

Today 170 million American people are dependent upon 500 million acres of cropland for their subsistence. This is about 3 acres per person. Whether we realize it or not, the future of each of us is tied to three of those acres. To all of us it is important how this land is used and exploited. We all have a stake in those acres even though we may never see them.

"Solution to the land problem calls for the use of every acre of every farm and ranch throughout the nation according to the kind and needs of each parcel of land of substantial size, as nearly as this may be practicable. This is a physical requirement that cannot be overlooked if we are to have sound and enduring use of the land."<sup>6</sup>

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<sup>4</sup>Ibid., p. 74.

<sup>5</sup>National and Sectional Religious Organizations, The Lord's Land (Chicago: Sear-Roebuck Foundation, 1958), p. 14.

<sup>6</sup>The Hugh Bennett Lectures, as given at North Carolina State College, Raleigh, June, 1959 (The Agricultural Foundation, Inc., 1959), p. 46.

An adequate and enduring agriculture depends on the availability of a sort of productive land which is properly used and so protected from erosion that it will remain permanently productive. Our national strength will certainly be impaired if we do not have a thorough-going program of soil and water conservation. As Paul Sears clearly states: "Our future security may depend less upon priority in exploring outer space than upon our wisdom in managing the space in which we live."<sup>7</sup>

As long as there was plenty of unsettled land, conservation did not seem important; however, there were a few of our citizens in the past who realized that this nation was headed for disaster unless something was done to check the devastating effects of wind and water. Among these are to be found such prominent figures as George Washington, Thomas Jefferson, Theodore Roosevelt, and Woodrow Wilson. Washington's personal letters and papers clearly indicate that he was a steward of the soil. Jefferson advocated and practiced safer uses of his croplands. Both of these early Presidents of the United States recognized the advantages of grass in their native state. First, it served as good grazing for cattle and, second, it acted to hold the soil in place to prevent further destruction to the rolling hills of Virginia.

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<sup>7</sup>Science, Jan. 3, 1958.

In York County one can find evidence of attempts made by early far-seeing citizens to halt the effects of erosion on the land. It is not uncommon to find old bench type terraces in abandoned fields where voluntary stands of timber are now growing. The terraces of that day were built by means of mule and plow, and no doubt many laborious hours were spent in their construction. They were effective to a certain extent, but the lack of present-day instruments prevented their efforts from being successful. Too few farmers of this County, however, made any attempt to halt soil-wash. Very few instances of other types of conservation measures are evident. It has been pointed out that only two per cent of the cultivated land was planted in any soil erosion resistant crop, chiefly the annual, lespedeza. A few of the better farmers had grown annual lespedeza for a number of years with great success; however, the average farmer had not used this valuable plant at all and was still relying upon voluntary plants to furnish the cover that was sorely needed.<sup>8</sup>

As early as 1908 a Conference of Governors was held in the White House for the purpose of drawing up a program of soil and water conservation for this country, but little was accomplished except increased interest and action in

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<sup>8</sup>Soil Survey of York County, 1934-1935.

forestry and wildlife, and an upsurge in the reclamation on the dry lands of the West. After this meeting some attention was given to national forests and their protection, but the status of soil conservation remained low.<sup>9</sup>

In the early 1930's the pyramid of mounting soil erosion, floods, and land damage in the East was topped by monstrous dust storms that swept away thousands of tons of soil from the Great Plains, often depositing soil in areas far removed from original localities. These mounting disasters drove thousands of families from their homes and in turn created problems for the cities or other areas where these immigrants settled.

By 1935 the devastating effects of erosion could no longer be overlooked. "The adoption of Public Law 46 gave great impetus to the Soil Conservation Service, and by June 1936 there was in operation 147 demonstration projects, 48 soil conservation nurseries, 23 research stations and 454 Civilian Conservation Camps. The total employment on that date was 10,394."<sup>10</sup>

The Soil Conservation Service had its birth in the Soil Erosion Service, a temporary relief agency in the

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<sup>9</sup>The Hugh Bennett Lectures, as given at North Carolina State College, Raleigh, June, 1959 (The Agricultural Foundation, Inc., 1959), p. 17.

<sup>10</sup>74th Congress, 1st session, 1935.

Department of Interior. There was some doubt in the minds of Service officials as to whether it would survive the relief period of the 1930's, but a bill was introduced and passed by Congress, establishing the Service as a regular agency. At this time it was transferred from the Department of Interior to the Department of Agriculture where it has remained.<sup>11</sup>

The first work undertaken in South Carolina as a result of the nationwide program authorized in September, 1933, was on the South Tyger River Watershed in Greenville and Spartanburg Counties. This activity created a great deal of interest throughout the Piedmont section of the state and many visitors came at an early date to learn firsthand about what was being done.

One group of farmers from York County, led by the late T. L. Johnston of Rock Hill, came in the summer of 1934. Mr. Johnston asked officials there about the possibilities of a similar project being established in York County. The matter was discussed and members of the technical staff on the Spartanburg project made a trip to York County to look over several watersheds and the Fishing Creek Watershed was chosen as the sight for possible action. Dr. T. S. Buie,

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<sup>11</sup>The Hugh Bennett Lectures, as given at North Carolina State College, Raleigh, June, 1959 (The Agricultural Foundation, Inc., 1959), p. 48.

now head of the State Conservation Service, made the appropriate recommendations to the Washington office. Dr. H. H. Bennett, then Chief of the Soil Erosion Service, approved the project. For some administrative reason, funds were not made immediately available and there was a delay of several weeks before work got under way. Mr. A. F. Ruff was placed in charge and, under his direction and management, much was accomplished within the next few years.<sup>12</sup>

In 1936 two lines of attack on the soil conservation problem appeared--namely, the beginning of the soil conservation district movement, and the beginning of subsidy payments by the federal government for the establishment of conservation practices. Since then, and more especially since 1942, the policy of the Soil Conservation Service has been to establish conservation practices on the land through the medium of soil conservation districts. Although the first state law providing for the creation of such districts was not passed until 1937, the soil conservation district is now used throughout the United States.<sup>13</sup>

A soil conservation district can be regarded as a local grass-root organization operating under state law. It is established democratically and formed only after

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<sup>12</sup>Personal Correspondence, T. S. Buie, State Conservationists, March 31, 1960.

<sup>13</sup>Guy-Harold Smith, ed., Conservation of Natural Resources (New York: John Wiley and Sons, Inc., 1958), p. 86.

petition and referendum. It can be discontinued if the people so indicate by vote. Five supervisors direct the affairs of each district. They receive no salary, but have the power to call on the Soil Conservation Service for technical help for farmers cooperating with the districts. Other agricultural agencies provide credit, cost-sharing aid, and educational help.

Many local groups take an active part in the district programs. These include bankers, merchants, chambers of commerce; machinery, seed, and fertilizer dealers; ministers, teachers, garden clubs, civic clubs, Boy Scout leaders; newspapers, radio and TV stations; the Grange, the Farm Bureau and other organizations for farmers.

As has already been stated, the interest created in the Piedmont and York County by the development of a nationwide conservation program grew and expanded. In March, 1938, the demand for technical assistance and aid in York and neighboring counties was such that the Catawba Soil Conservation District was formed in order to aid the farmers of this area with their farm plans for better utilization of soil and water. Originally the District was comprised of York, Chester, Lancaster, and Fairfield Counties. It was directed by a board of five supervisors and each county selected a local farmer to serve in this capacity. In 1950 the Catawba District was organized as a separate district and York County

was the only county included. Two things necessitated this change. First, local units of government are set up on county basis and in order to cooperate fully with other organizations the four original counties decided to operate as single units. Second, the increasing demands for assistance were too much for one representative to handle.

The district supervisors have been instrumental in helping other conservation units carry out plans for farm improvement in the County. They have given many free hours of their time to promoting conservation among their neighbors, to bringing their communities together so they could consider the land and water problems they have in common, to enlisting the aid of the Soil Conservation Service and other organizations which can lend a hand, and to governing their districts, not by compulsion but by democratic methods of action.



### CHAPTER III

#### DESCRIPTION OF YORK COUNTY BEFORE IT WAS SETTLED; EARLY PURSUITS AND DEVELOPMENT OF CULTIVATED CROPS

Inland from the Atlantic Coastal Plain, between the Blue Ridge and the Fall Line Zone, lies the Piedmont, a long belt of foothills averaging about 100 miles in width. Extending from southeastern New York to Alabama, it reaches its greatest width in southern Virginia and North Carolina. This area is divided into regions which include the Northern, Central, and Southern Piedmont sections. York County lies within the Southern Piedmont (which also includes south-central North Carolina, western South Carolina, northern Georgia and northeastern Alabama).<sup>1</sup>

This area has a mild climate that makes it both desirable and favorable for residence, as well as for agricultural pursuits, commercial development, and industrial endeavors. The winters are usually marked by a few light snows that last for a short time only. According to the weather data collected at Winthrop College, Rock Hill, South Carolina, the mean annual temperature of York County is

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<sup>1</sup>C. Langdon White and Edwin J. Foscue, Regional Geography of Anglo-America, second edition (New York: Prentice-Hall, Inc., 1954), pp. 102-103.

62.06 degrees F.; the mean annual rainfall, taken for a period of thirty-five years, is 46.21 inches; and the growing season is approximately 229 days. The rainfall is usually well distributed throughout the year with the most abundant falling in June, July, and August. The mean average rainfall per month for this period is 4.95 inches. The autumn months, September, October, and November, average lower in precipitation than any other three month period. A dry climate during this period of the year facilitates the planting of fall grain and the preparing of ground for early spring plantings, as well as harvesting crops maturing at this time.

The Piedmont is a rolling, hilly area with an elevation from 100 to 1,500 feet. While called an upland, it is really an erosional plain with a few hills rising above its otherwise gently rolling surface.<sup>2</sup> The general relief of York County is from level to gently rolling to hilly. In the northern part of the County the more rolling and hilly areas are found while the southern section contains the more level land.

The soils of the Piedmont are chiefly residual, having been formed by the weathering of the underlying rocks. The

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<sup>2</sup>C. Langdon White and Edwin J. Foscue, Regional Geography of Anglo-America, second edition (New York: Prentice-Hall Inc., 1954), pp. 102-103.

granites and gneisses form loams, while most of the other rocks form clay soils. York County contains soils of both the above mentioned types. In color, they range from a light gray or yellow to a red or brownish red color. The majority of the soils belong to the red type with the light color being caused partially by imperfect drainage, and partially by the difference in parent material and weathering and decomposition of this material. The red soils usually occupy the steeper and more rolling topography throughout the area with the yellow and gray soils occupying the more level topography.<sup>3</sup>

The early settlers in this section, oddly enough, did not originate from the South Carolina-Georgia Tidewater areas. They were principally Scotch-Irish and Germans, who "by gradual emigration penetrated southward through the valleys of Virginia, across North Carolina and into the 'up-country' of South Carolina."

By mid-century, a few families of these bold pioneers had settled what later became Spartanburg and Abbeville counties. The Cherokee War (the Southern phase of the French and Indian War) temporarily checked further settlement in the Piedmont until 1755, when a treaty with the

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<sup>3</sup>Workers of the Writers' Program of the Work Projects Administration in the State of South Carolina, South Carolina (New York: Oxford University Press, 1941), pp.10-11.

Cherokees opened to settlement a good part of the South Carolina Piedmont, including, among others, Union, York, Cherokee, and Chester counties.<sup>4</sup>

The first dwellings and perhaps most of the first cultivated fields were in the low lands along the streams. Tradition holds that the pioneers, in locating their settlements, looked for the land that supported the greatest growth of canes. The cane growth was, at that time, the standard way of establishing land values. F. A. Michaux, when passing through this region in 1802, noted that the highlands were not cultivated to any great extent, but it was estimated that by 1808 one acre out of every eight had been cleared. This was due in part to the unprecedented floods that took place on the Santee and other rivers to the south of the County which caused a great migration into the County.<sup>5</sup>

There is probably a marked difference in the original vegetation seen by these settlers and that now present as well as many other changes that have occurred. The "Long-Dram" beautiful valleys and glorious highlands spoken of by Lord Cornwallis were often seen stretching for miles. On

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<sup>4</sup>Anthony M. Tang, Economic Development in the Southern Piedmont (Chapel Hill: University of North Carolina Press, 1958), pp. 22-23.

<sup>5</sup>E.C. McCants, History Stories and Legends of South Carolina (Dallas: Southern Publishing Company, 1927), pp. 11-12.

the higher spots were found oak, hickory, and chestnut of tremendous growth, standing so wide apart that buffalo and wild deer could be seen grazing for a long distance. These woodlands were carpeted with grass and wild peas which sometimes grew as high a horse's back. The valleys of nearly all the streams, even those in the uplands, supported stands of cane varying from five to thirty-five feet in height.<sup>6</sup>

Cattle herding, swine and horse raising were early economic pursuits undertaken by the pioneer settlers. Such a country as this afforded ideal pasture for stock. Hence, these settlers were called "Cow Pen Drivers" and "Cow Drivers." Cabins were built among these pastures for the traders and likewise large enclosures into which the cattle were driven for marketing and handling. This business was a large one and substantial numbers of beef cattle were driven annually to markets at Charleston, Philadelphia, and New York. The quality of the South Carolina horses was so high that the Provincial Legislature passed a statute forbidding the introduction of inferior horses from Virginia and other northern plantations. The natural abundance of the various grasses and wild legumes and the subtropical climate permitted pasturage for the greater part of the year. The animals were allowed open range in the County, except at

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<sup>6</sup>M. B. Brissie, Monograph of Fishing Creek Watershed Project (Rock Hill, South Carolina, 1939), p. 54.

certain seasons of the year when they were rounded up for counting and branding at the various cowpens. Cattle herding and hog raising continued to be an important pursuit in this section as late as the end of the eighteenth century. Nevertheless, as the business grew it was beset by difficulties--organized cattle stealing flourished, and cattle tick and various cattle diseases were influential and outstanding factors in reducing the quality of the stock. The passage of the Fence Law of 1877, requiring the enclosure of stock, was another factor that contributed to the decrease in the quantity of livestock, but the foremost reason was the spread of the plantation idea and the one crop system of cotton that has prevailed for so long in this section.<sup>7</sup>

The plantation was not fitted for stock raising. It was primarily an industrial organization for the employment of servile labor in the routine production of staple crops, mainly cotton. Slaves, however valuable for cotton, were of little use in handling livestock. It is notable that slaves were not introduced in the stock ranges of Western Texas where cattle raising has been an outstanding success. The care of good stock is admittedly a task for experts, and slaves could not be readily trained to such expertness.<sup>8</sup>

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<sup>7</sup>M. B. Brissie, Monograph of Fishing Creek Watershed Project (Reck Hill, South Carolina, 1939), pp. 7-8.

<sup>8</sup>Rupert B. Vance, ed., Human Geography of the South (Chapel Hill: University of North Carolina Press, 1932), pp. 150-151.

Cotton, the main cash crop, raised by farmers of this section since 1800, was very early introduced by the first settlers and was an article of export before this area was completely settled. The problem of separating the lint from the seed was never of prime importance because cotton cultivation was just getting underway here when Eli Whitney invented the cotton gin in 1793. The main problem for most areas of the Piedmont was marketing, but again this factor was no great handicap to this region because transportation on navigable rivers was available. The following is an account of marketing travel according to Mill's statistics of 1826.

"York District is bounded on both sides by navigable streams; namely, Broad River and Catawba River. This circumstance is of great importance to the agricultural interest, affording it several advantages over the adjacent districts. The land transportation by mule and wagon from the courthouse or any other point to either stream does not exceed thirteen miles. Produce can be conveyed in boats carrying forty or fifty bales of cotton, even to the city of Charleston."

By the early nineteenth century cotton had taken such a prominent position that every available acre was used for the cultivation of the product. Slave labor was introduced and the increasing percentage of Negroes in the population thus became an index of the intensity of cotton culture. Land was cleared, then planted to cotton year

after year until the land was so gullied or otherwise exhausted as to be worthless.<sup>9</sup>

Little thought was given to methods of cotton cultivation that might produce good yields and at the same time save the soil from destruction by erosion. The main idea that prevailed among farmers was to plant the land in cotton year after year and, when it no longer produced the expected yields to clear new land and till it until its productivity was depleted. Thus a vicious cycle operated to destroy the soil and allow the land to be washed away by eroding waters.<sup>10</sup>

By the early 1800's it was noted by progressive farmers that various types of fertilizers, such as stable manure, composts, and cotton seed, contributed to greater yields. These types of fertilizers were broadcast over the fields, then plowed under. The rows were laid off, in most cases not according to contour, and the seed planted in the prepared furrows. As soon as the plants were several inches high, the stand was thinned by means of a hoe, and clean cultivation was given the crop until about the middle of July. Very few instances were observed where farmers planted any appreciable acreage of winter cover crops preceding

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<sup>9</sup>M. B. Brissie, Monograph of Fishing Creek Watershed Project (Rock Hill, South Carolina, 1939), pp. 27-28.

<sup>10</sup>Ibid.



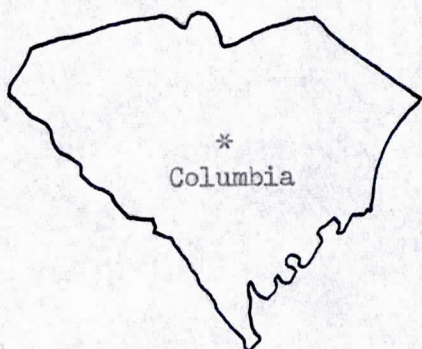
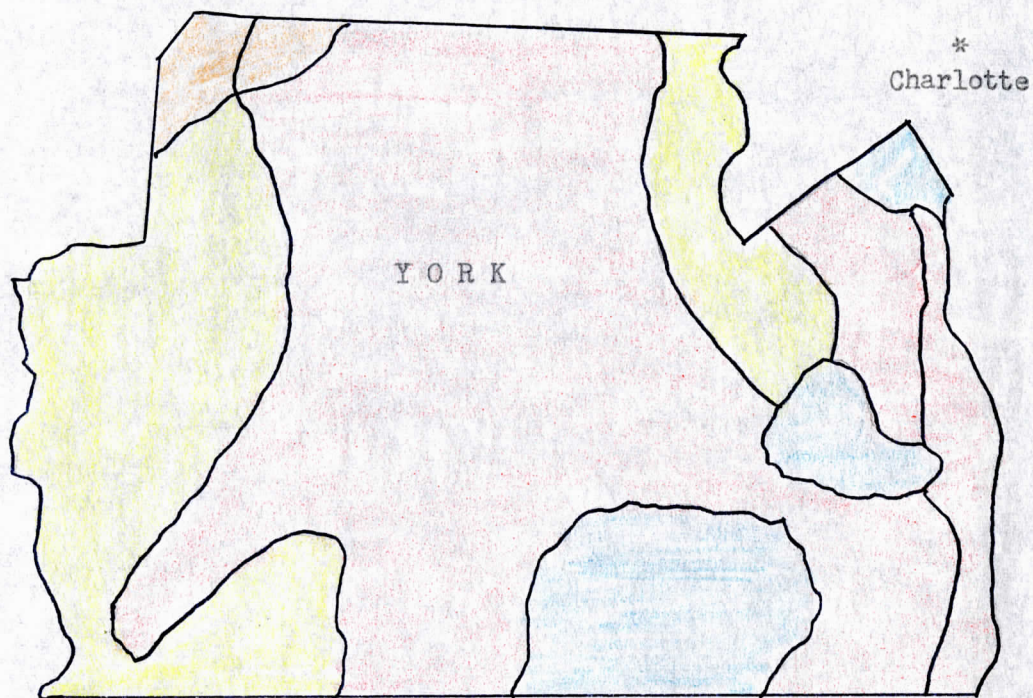
cotton nor where they attempted to halt the erosion by other means of conservation.<sup>11</sup> The cover crops would have reduced the erosion that occurred during the winter months when the land was left bare of protective cover, but farmers seemed to be reluctant to use any type of plant for winter cover because they expressed the belief that in so doing it would necessitate late spring preparations for cotton cultivation. Winter cover crops must be plowed under in the very early spring and a limit of ten to fifteen days allowed for their decomposition before planting of other crops could take place. One can readily see that this would delay planting of cotton especially if a rainy season occurred during the spring. In more recent years, however, with the advent of farm machinery winter cover crops can be grown and the plantings completed within the proper time. With the modern machinery of today one can prepare land and seed it in a much shorter period of time, and in more recent years the growing of winter cover crops has become more prevalent. Many acres that are seeded to row crops, however, are still left bare throughout the winter and early spring.

Because of the lack of printed records pertaining to other crops, which no doubt played a minor role in early

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<sup>11</sup>M. B. Brissie, Monograph of Fishing Creek Watershed Project (Rock Hill, South Carolina, 1939), pp. 21-22.

LAND RESOURCE AREAS OF YORK COUNTY



LEGEND





-  Kings Mountain Area
-  Moderately Rough Piedmont Area
-  Rough Piedmont Area
-  Blackjack Area -  
Piedmont Flatwoods

Figure 1

agricultural pursuits, it would be hard for the writer to draw any conclusions as to the amount their cultivation contributed to erosion. The aforementioned survey, however, pointed out that pasture lands existed within badly eroded crop land which was fenced off, and that cattle were turned in to graze whatever vegetation existed on such areas. The most severe erosion found in the project area occurred on such lands.<sup>12</sup>

Forest lands comprised approximately 30 per cent of the total farm acreage, based on a survey of 244 farms. About 75 per cent of the land classed as woodland was fenced in and used for grazing purposes for cattle by the farmers. This practice resulted in poor grazing and unproductive woodlands. Annual burning of these areas did much to destroy young trees and to deplete the humus in the soil, as well as to forestall the improvement of grazing conditions. Farm woodlands were not looked upon as potential source of annual income, but were nevertheless harvested by clean cutting of the area when trees approached marketable size. The stovewood supply was obtained by harvesting the straight and easily cut trees rather than by cutting the crooked and inferior ones and leaving the potential saw timber.<sup>13</sup>

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<sup>12</sup>Soil Survey of York County, 1934-1935.

<sup>13</sup>Ibid.

No doubt, some of the earlier farmers of the County were far-sighted enough to recognize that farming, as it existed then, would eventually bring its toll of bad effects upon the soil as well as upon the economy of the County. Because of the existing conditions of that day, however, farmers continued for generations to till and manage the land in the same destructive way. Many years were to elapse before concerted effort and planned programs were attempted in order to restore the land to its original fertility.

## CHAPTER IV

### CONSERVATION IN ACTION

During the fall of 1934 and the early spring of 1935, the personnel which was to carry on demonstrations in soil and water conservation in the Fishing Creek Project Area was assembled and operations were begun. Mr. A. F. Ruff, Assistant Regional Director, was in charge of the entire work on the demonstration area. As erosion specialists, he had the assistance of three technicians who were responsible for assembling complete farm plans on all the farms on which work would be done. In the engineering department, one agricultural engineer was in charge with one assistant agricultural engineer, and two agricultural aides, who were responsible for carrying out plans which were made by other engineers. The department of soils was under the direction of F. T. Ritchie, Soils Expert, who had as his assistants two soils experts who were in charge of cooperative agreements.<sup>1</sup>

With these technicians available the immediate task was to inform the landowners in the project area about the

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<sup>1</sup>Personal Correspondence - T. S. Buie, State Conservationists, March 31, 1960.

Service, and to secure their interest and cooperation in mapping out plans for their individual farms which would control erosion and at the same time permit their farms to become self-sustaining. The problem was attacked educationally through a series of meetings which were scheduled throughout the project area. Farmers were called together and members of the Service explained to them the procedure to be followed in setting up complete programs of erosion control on individual farms. As a result of these meetings many invitations were received from landowners asking members of the Service to assist them in putting on such a program.

In the beginning, farmers were often hesitant about inviting members of the Service to their farms. They had many misconceptions about the program and preferred to wait until their neighbors had received some of the benefits and thereby have an opportunity to determine whether or not they desired to become cooperators.

The public response, however, was usually good. The County Agent, who was in close touch with farmers and farm needs in the area, used every means at his disposal to create the proper attitudes toward the project among the landowners. The newspaper in the city of Rock Hill was very cooperative, giving as much space as was desired to help inform the farmers of the area about the advantages of a



Figure 2  
Badly Eroded Pasture on Dave Cameron Farm near York, S. C.  
(Photo - Courtesy of Soil Conservation Service)

program of erosion control. Civic groups, school officials, and other agencies very early sought the services of members of the project personnel who could explain the program and assist in the dissemination of information to those farmers within the bounds of the Soil Conservation area.<sup>2</sup>

In 1936 a movement was started within the Service to form soil conservation districts. The local farmers who make up this organization have been instrumental in helping the other agencies to contact additional farmers, and to help them with problems they faced in planning for better utilization of soil and water.<sup>3</sup> During the first few years, the Service concentrated on terracing, strip cropping, pasture improvement, and better woodland management. The technicians felt that these conservation measures should be the first to be undertaken, and that they could be used as a proper foundation for other measures that would be adopted as time passed.

The average farmer looked upon the construction of terraces as being the entire program. He had the impression that if his land was properly terraced, erosion could be controlled. They did not stop to realize that many of their farms were already terraced according to the general

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<sup>2</sup>M. B. Brissie, Monograph of Fishing Creek Watershed Project (Rock Hill, South Carolina, 1939), pp. 56-57.

<sup>3</sup>Guy-Harold Smith, ed., Conservation of Natural Resources (New York: John Wiley and Sons, Inc., 1958), p. 86.



practices then in use and were still eroding. The usual plan followed by farmers in their construction of terraces was to lay off hillside ditches in fields where gullies were beginning to form. No systematic method was followed in laying out these hillside ditches, but one rule was always followed and that was to give the ditches plenty of fall so that rain-water would be drained off the field. These terrace lines were spaced at irregular intervals down the slope at such points as the farmers felt they should be located. No attention was given to the selection of outlets, the water usually being divided near the middle of the field and forced to run to either side. Before reaching the edge of the field, the terraces were given additional fall which caused scouring out near the ends and excessive erosion occurred before this water reached stream level.

Crop rotations used in the area were largely field rotations. Many of the better farmers followed the practice of rotating their land every third year by sowing small grain which was followed by cowpeas. This was the standard rotation wherever rotations were practiced. Not a single instance was found where rotations were being used in strips rather than fields. On farms where rotations were practiced, it generally followed that all fields on the farm usually produced cotton as high in quantity and quality as fields that had been subjected to rotation. The limiting factor

here was the amount of land which the farmer considered particularly adapted to producing the highest yield of cotton. On most every farm the owner had certain special fields where he felt that cotton could be produced more economically than on other fields of the farm.

The burning of woodlands went on unrestrained. These woods fires were usually the result of burning of hedge-rows and fence corners in the early spring. Educational work had not been done in the field of woodland management so the farmers were unaware of the value of woodlands and the damage being done by the burning of these woodlots. No landowner in the project area used a method of selective cutting of trees, but each continued the practice of completely deforesting his woodlands. In many cases these burned over woodlots were used for so-called pasture land or sometimes they were returned to the production of row crops.<sup>4</sup>

During the fall of 1934 the initial program by the Service was begun and terracing was to receive first attention. No Soil Conservation Service equipment was available, however, and a 20 HP crawler type tractor was rented. This tractor was used with a Caterpillar No. 2 terracer. The

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<sup>4</sup>Soil and Water Conservation Experiment Station, Statesville, N. C. Particular test on Soil Losses from 1932-1936. (Losses from representative erodible land of the Southern Piedmont.) This experiment station is no longer in existence. Today, this work is being carried on at the Watkinsville Experiment Station, Watkinsville, Georgia.

operators were inexperienced except for work they had done on country roads. Terraces were constructed by moving soil to the ridge from both sides. This resulted in a V-shaped channel which concentrated the water against the ridge. In many cases the flow of water against the loose soil caused severe damage.

No terraces were constructed on slopes from 0 to 3 per cent, which represented 22 per cent of the project area, or 29 per cent of the crop land. Slopes from 3 to 12 per cent were terraced, and this represented 69 per cent of the crop land within the project. Slopes from 12 per cent and above were retired to permanent vegetation and represented 9 per cent of the total land, or 2 per cent of the crop land. Particular attention was given to water disposal areas where run-off occurred from these terraces. The drainage that occurred emptied into wooded areas, pasture, or any type of vegetation that might control erosion, and these outlets are referred to as natural outlets. In some few cases, outlets were located in road ditches along the farm and country roads where it was determined that road ditches could carry this water without any appreciable damage to the road.

Where fields were terraced and there was no natural outlet available, a channel was usually located in draws or low-lying areas. These draws were designed to proper size



Figure 3  
Bermuda Sod Terrace Out-let Channel on the T. C. Dunlap Farm.  
Note how well the Bermuda sod strips retard the flow of water.  
(Photo - Courtesy of Soil Conservation Service)

in accordance with run-off data, design tables, and other designing information furnished by the Service. In the majority of cases terrace outlet channels on slopes of  $\frac{1}{4}$  to 3 per cent were seeded with Bermuda grass. This was done in the following manner: Oak baffle boards were placed on a level and at right angles to the flow on a 12-inch vertical interval. Sod strips 12 inches wide and approximately  $\frac{1}{4}$  inches deep were placed on the downstream side of the baffle. Intermediate sod strips were placed approximately half-way between the baffle boards. A trench was cut by hand to a depth that would allow the sod to remain flush with the channel grade after tamping. A liberal application of fertilizer or compost was placed in the bottom of the trench before the Bermuda sod was set.<sup>5</sup>

In more recent years other methods of terracing and treatment of outlet channels have been practiced and found to be more effective in decreasing the amount of erosion that normally took place during heavy rains. Today, the broad base terrace is used widely and can be constructed by machinery found on the typical farm. This requires the plowing of six furrows to a width of eleven feet below the terrace line and four above and to the terrace line. This process is continued until an adequate amount of soil has

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<sup>5</sup>Recommendations by the Statesville Experiment Station and Project Engineers. Statesville, N. C.

been plowed to make the desired fall and height. The older type or V-shaped terrace caused considerable trouble in crossing with farm machinery, but the newer broad base terrace, if properly constructed, can be crossed with any type machinery in use today.

In order to show the reader the effectiveness of the program of terracing and terrace-outlet construction, the following account is taken from a 1957 annual report made by the Service and District organizations: "Perennial vegetation established in natural depressions for water management areas to handle the water from terraces amounted to 1,582 acres. There are 2,738 miles of terraces to insure that the water 'walks' off instead of runs off the fields."<sup>6</sup> This is quite an accomplishment considering the fact that less than twenty years ago it was estimated that only 50 acres of effective terrace outlets were being maintained. The land at that time, although terraced to some extent, was not able to hold and to utilize properly the water that fell.

Rotations recommended and put into effect during the performance on early agreements with farmers varied according to soil types and slopes found on individual fields. From the standpoint of the slope, it was felt that as the

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<sup>6</sup>Program and Work Plan, Catawba Soil Conservation District (York, South Carolina, Jan., 1957), Prepared by District Supervisors.



Figure 4  
Aerial View of William J. Wooten Farm,  
Chester, S. C., Catawba River Soil Conservation District  
(Photo - Courtesy of Soil Conservation Service)

slope of the land increased, the proportion of close-growing crops to row crops should be increased. On slopes ranging from 0 to 3 per cent, it was the policy to plan rotations on the contour without terraces. Under this plan contour lines were run and alternate strips of close-growing crops and row crops were planted approximately 60 to 100 feet in width. The difficulty encountered here was the fact that usually on such slopes it was not economical for the farmer to produce a maximum percentage of row crops. Also, such slopes usually occurred within fields where sloping lands above and below had to be terraced.<sup>7</sup>

On slopes ranging from 3 to 7 per cent, either field rotations or rotations within the field were recommended. In setting up the rotations within the field, the fields were usually divided into three parts, one part planted in small grain to be followed by lespedeza or cowpeas, another section equal in acreage was planted in cotton, and the third section was planted in corn and inter-planted with cowpeas. It was the general plan in the beginning to rotate the crops on these sections each year. This system of rotations followed closely the general policy which was set up by the State.

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<sup>7</sup>Recommendations by Statesville Experiment Station, Statesville, North Carolina, 1939.



On lands where the slopes ranged from 10 to 12 per cent the plan was to establish two-year strip rotations of small grain followed by lespedeza or cowpeas, and cotton or corn. Under this system, single terrace intervals were used as strips, thereby having every other terrace interval in the field planted in a close-growing crop. It was felt that on such slopes 50 per cent of the land planted in close-growing crops would be adequate to control erosion.<sup>8</sup>

Today, both methods of rotation are being used. As one drives throughout the County, it is common to see strips of close-growing crops such as wheat, oats, barley, and lespedeza planted at proper intervals. This has not only helped to check the flow of water and decrease erosion, but has helped to add much needed humus to the soil and thereby raise the yield of row crops such as cotton and corn.

Early efforts to improve permanent pastures in the area were limited to additional seeding of such areas. In the moist portions of pasture land, adjoining small streams, the Service made available small quantities of carpet grass for seeding. The hillside lands where moisture was lacking were scarified with a drag harrow and were planted to the common variety of annual lespedeza. On pasture areas where erosion was severe, efforts were made to plant strips of

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<sup>8</sup>Ibid.

Bermuda sod with small amounts of fertilizer placed under them in an effort to spread the Bermuda sod over the entire area. No effort was made to construct terraces in these pastures where it was necessary to extend terraces from cultivated fields for proper water disposal.

During 1936 technicians of the Soil Conservation Service concluded that the treatment being given permanent pastures was not giving satisfactory results. It was determined by the specialists that the main types of grasses being grown did not adapt properly to the type of soils and climate in the County. A decided need for better grazing was recognized. This condition was brought about, to a large extent, by the operations of the AAA (Agricultural Adjustments Act) program reducing the acreage allowed to be planted in the cash crops customarily produced. Because of the reduction in acreage of cash crops, farmers began to turn more and more to livestock production to supplement their incomes and help with other farm needs. With this in mind a coordinated effort was made by the Clemson College Experiment Station (Clemson College Extension Service) and the technical personnel of the Soil Conservation Service to concentrate efforts on the best known practices for pasture improvement. Locations were chosen for demonstration pasture plots, and the following treatments were instituted. All trees except those necessary for shade were removed.

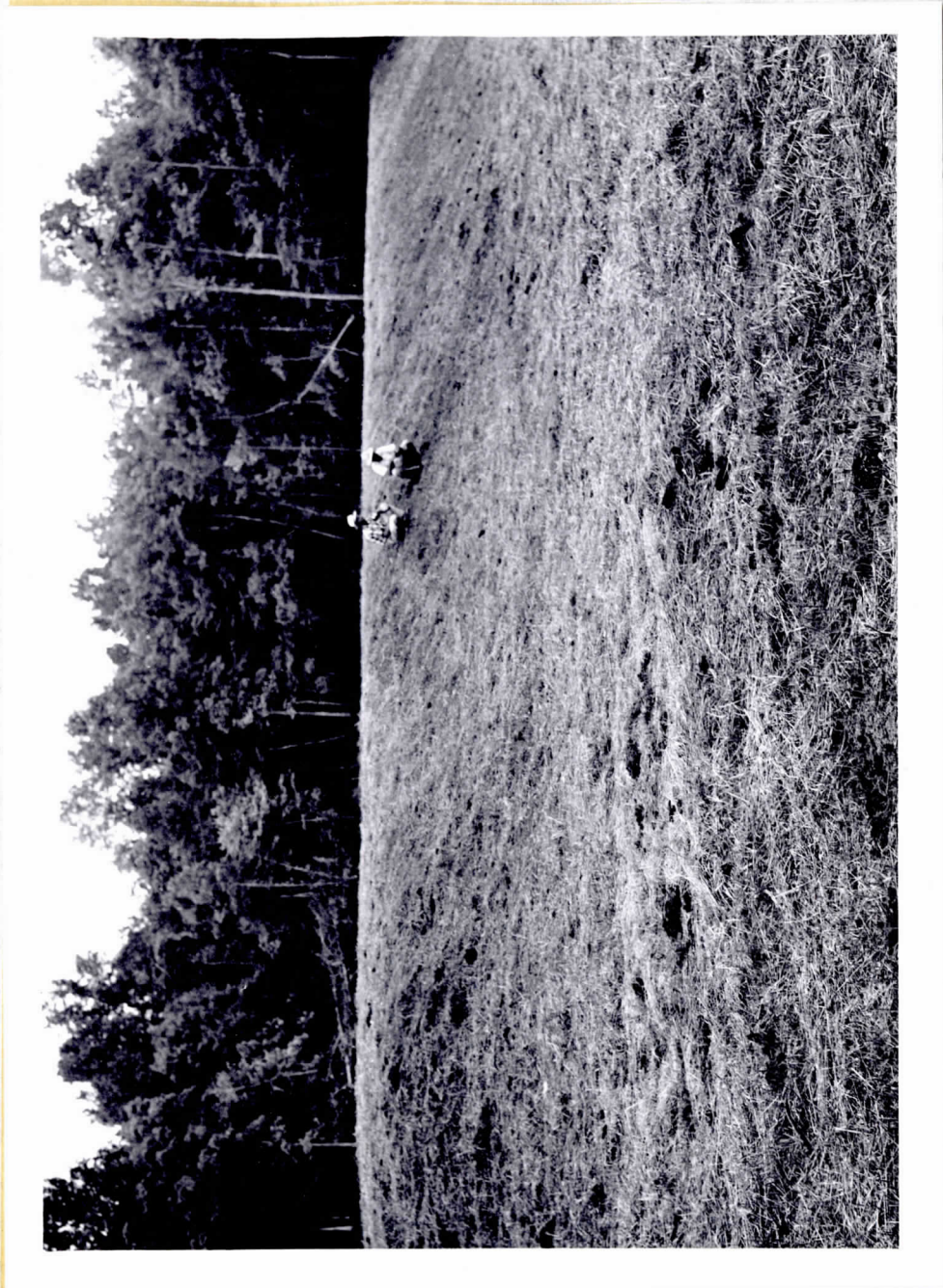


Figure 5  
W. B. Wilkerson, Jr., Chairman of Catawba Supervisors and Lewis Carson, SCS aide, inspect seeding and mulching on spillway of a newly constructed dam on Mr. Wilkerson's farm.  
(Photo - Courtesy of Soil Conservation Service)

All pasture areas were chiseled with a Killefer No. 8 road ripper. Gullies were filled in by means of terracing machines. The ground was prepared, and during November lime and phosphate were applied, broadcast at the rate of 1,000 pounds per acre and 400 pounds per acre respectively. Lime and phosphate were then harrowed in with a disc harrow. During the middle of March the following seedings per acre were made: 15 pounds of Dallis grass, 15 pounds of common lespedeza, 6 pounds of white Dutch clover, 10 pounds of Red Top grass, and 10 pounds of orchard grass. Most of the seedings were broadcast by hand and harrowed in lightly with a drag harrow.<sup>9</sup>

From observations and studies made on these demonstration pastures, it was determined that it was impracticable to attempt to establish permanent pastures on poor, badly eroded, "anemic" soils. Also, many of the grasses used were not adaptable to the type of soils in the area, and it was noted from later experiments that this type of pasture seeding should be done in the early fall rather than during the spring months. Where fall seeding is done, plants have time for proper growth before the onset of humid summer weather.

In more recent years, the Service, in cooperation with the Soil Conservation District representatives and

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<sup>9</sup>Recommendations by Clemson College Experiment Station, Clemson, South Carolina, 1936.

farmers of the County, have applied more improved methods of pasture treatment and maintenance to thousands of acres of farmland. Other varieties of close-growing cover crops, such as fescue and ladino clover, have taken the place of the older and less adaptable varieties. These newer ones grow well in most soil types, and with proper fertilization and management usually afford year-round grazing for livestock of the area. The data given below will bear out the foregoing statement. "As of January 1, 1957, according to SCS reports, permanent pasture had been established on 36,447 acres of farms of cooperators within the District and 75 beef herds graze on improved pastures." This increased acreage in pasture is not wholly due to the adoption of newer varieties of seed, but in large measure to the present trend within the County toward expansion of livestock and the decreasing of row crops.<sup>10</sup>

Native woodland covered 27 per cent of the County under agreement. The three main timber types are pine, pine-hardwood, and red cedar. The predominant type is pine-hardwood, with the pine a close second. Practically no virgin timber is found in the area, and as the topography is rather hilly, much of the soil in the forest is rather poor due to erosion which took place while the land was in cultivation.

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<sup>10</sup>S. C. S. Annual Report - 1957.

Very little timber of excellent grade is found in the area because of the poor cutting practices that have already been described. Some hardwood timber of large size can be located near bottomlands, but in many cases this timber is faulty as a result of being left standing after it had matured.

Some of the earliest work done toward the improvement of woodlands and plantings came in the early 1930's with the advent of the CCC (Civilian Conservation Corps). These youths and young men can be credited with setting out many acres of pine and black locust. Some of these settings have reached maturity, but many were cut for pulpwood as soon as they were usable.<sup>11</sup>

The forestry program, carried on by the Service, consisted almost entirely of reforestation and woodlot thinning. In the main, trees were furnished by the Soil Conservation Nursery located near Rock Hill, South Carolina. This nursery was developed in the late 1930's for the purpose of serving South Carolina and portions of various other states.<sup>12</sup> Loblolly pine was and is still the predominant seedling used for reforestation purposes. A few

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<sup>11</sup>Workers of the Writer's Program of the Work Projects Administration in the State of South Carolina, South Carolina (New York: Oxford University Press, 1941), p. 526.

<sup>12</sup>Personal Correspondence, T. S. Buie, State Conservationist, March 31, 1960.

thousand hardwoods, such as black locust, yellow poplar, white oak, and white ash have been planted from year to year on selected spots. The locust has attained neither the growth nor the survival expected, and many farmers have run into considerable difficulty in attempts to control its spread.

In the beginning, the Service used spacings of 4 x 4 feet on a contour and the plants were staggered. Later, this method was changed to spacings of 6 x 6 feet and today the recommended spacing is 8 x 8. The latter allows room for proper growth and thus quicker maturing.

The writer has not been able to locate reliable data concerning the total number of acres that have been reforested. However, from the material available, it would be reasonable to conclude that within the past twenty years more than 15 per cent of open land has been retired to trees. The Soil Bank and the Conservation Reserve Program, instituted recently, has given added impetus to tree plantings in the County.

A great deal seems to have been accomplished in regard to making farmers more "wood conscious." Where timber is of marketable age and size, farmers seek the aid and advice of the Soil Conservation Service and the Forest Service for timber estimates before a sale is made. This is an indication that land owners are more accurately considering the real value of their woodlands.



Figure 6  
Cattle Grazing Kudzu  
W. B. Wilkerson, Jr., district supervisor, is in background.  
(Photo - Courtesy of Soil Conservation Service)



The annual burning of woodlots ceased many years ago. Today, fire fighting equipment can be obtained within a short time after a woodfire is sighted. In some areas, fire lanes have been established for preventing the spread of large woods fires. Look-out towers may be found in many areas and in some instances effort has been made to clear away brush and debris of all kinds.

Many other conservation measures have been instituted during the past twenty years. Gullies found in the area twenty years ago are no longer considered lost land or eye sores. These have been treated in different ways to achieve the best results. In smaller gullies, stake type brush dams were built and black locust seedlings were planted behind these dams. Kudzu crowns were used later and found to be more effective in checking further destruction.

The wildlife of the area is on the increase as a result of the attention given by the Service and by interested farmers. In the late 1930's, small field plantings of soybeans, millet, sesbania, and iron cowpeas were made. These plantings were made near or adjacent to woodlands, but were neither practical nor permanent because of the shade produced by the trees. Throughout the intervening years bicolor lespedeza, lespedeza sericea, German and brown millet, Kobe and Korean lespedeza, Sudan grass, wild rose, wild grape, Sumac, dogwood, redbud, French mulberry, and other plants

and shrubs have been used to provide food for the birds and other animals of the area.<sup>13</sup>

Farm ponds in the area now exceed 700 in number and are rapidly increasing.<sup>14</sup> These ponds conserve water for stock uses, irrigation, fish culture, fire protection, and recreation. As each pond is constructed and an ample amount of water collected, it is stocked with bluegills and bass. More recently farmers have added catfish to some of their ponds. This is especially true where existing conditions prohibit water from becoming clear.

Sericea is rapidly gaining recognition in this part of the country. A definite increase in acreage was noted by 1946, and since that time 36,000 acres have been seeded to this valuable plant. Probably the outstanding reason for this is the fact that early plots were used successfully by the Service in attempts to halt erosion. Too, it was found to grow well in most soils and can survive a long period of drought as well as usual amounts of rain-fall. If cut at the proper time, it makes a very good hay and can be used successfully for early summer grazing.<sup>15</sup>

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<sup>13</sup>M. B. Brissie, Monograph of Fishing Creek Watershed Project (Rock Hill, South Carolina, 1939), p. 74.

<sup>14</sup>Program and Work Plan, Catawba Soil Conservation District, Prepared by Supervisors, January, 1957, p. 1.

<sup>15</sup>S. C. S. Progress Report - 1957.

## CHAPTER V

### SUMMARY AND CONCLUSIONS

During the 1930's and the early 1940's the usual conversations on the courthouse lawn, on the street corners, and in the country stores dealt with the damage being done by the boll weevil, the price of cotton see, the question of whether the cotton market would be better in the spring, and the possibility of storing cotton and waiting for better prices. "What must I tell the banker when my notes come due?" "My mules are getting old and I must replace them soon for younger ones or else I'll have to turn to another trade for a livelihood." These and similar problems caused many farmers to be justly concerned about the weather during the growing season and to be worried over the prospects of having too much or too little water. During the harvesting season, when the fields were white with fluffy cotton fiber, they were concerned about the occurrence of excessive amounts of rainfall because this had a damaging effect on the quality of the staple and grade and automatically meant a lower price.

Such conversations about cotton and other row crops no longer take precedence over other problems of farming. Cotton is no longer "King of Crops" in the County and its

cultivation is rapidly passing from the scene throughout this area of the Piedmont.

The writer does not mean to imply that, with the advent of the adoption of other crops, concern over failures caused by climatic conditions, price squeezes, and other factors ceased. But, because of the revolution in farming, which characterizes this area, better soil management has been developed and has greatly contributed to improvement in production and farm income.

The introduction in recent years of soil and water conservation practices, together with farm mechanization and judicious crop fertilization, have changed the agricultural picture in the County in many respects. The farmers and landowners of the County have learned through painful experiences that conservation farming is essential today. They have been willing, in most cases, to follow the advice of the technicians and specialists in carrying out the plans that were designed to assist them in this gigantic problem.

The introduction of improved soil conservation practices has borne fruit. The Catawba Soil Conservation District was declared the state winner in the Goodyear contest in 1956 and this was an outstanding achievement. The district chairman and the outstanding cooperator were given a free trip to Wigwam resort and Goodyear Farm, Litchfield Park, Arizona, late in 1956.

The purpose of the Goodyear contest is to encourage boards of supervisors to adopt and carry out approved methods in conducting their meetings, securing the help of all groups and individuals who have a part in making the Soil Conservation District program effective, and to get more and better practices of conservation of soil and water applied on the farms of the district.

This award climaxed several years of hard work on the part of district supervisors, SCS technicians and cooperating agencies in their efforts to prepare and aid individual farmers throughout the County in carrying out sound practices in the field of conservation.

Another example of good work that has been carried on by these agricultural groups is the aid and assistance given to one Theadere Roddey, a Negro farmer, of the Liberty Community of York County. In 1942, Roddey bought a 100-acre tract of land through the Farmers Home Administration. At that time the land was eroded and the fertility of the soil was practically nil. There were no evidences of terraces, and bushes and thickets had claimed a major portion of the total acreage. With the aid of SCS technicians and district officials, Roddey began to improve his land in 1946. Acres that formerly produced about one-third of a bale of cotton per acre, were, within a short span of time, producing more than a bale per acre. His land was scientifically terraced,

specific areas were planted to loblolly pines, acres were set aside for permanent pastureland, and a balanced plan for other areas was drawn up. Roddey's record is an impressive one, and for his accomplishments, he received first place honors in the South Carolina soil conservation contest for Negroes. His record was then entered in Southwide competition where he received first prize in a "jamboree" in which Negro farmers from South Carolina, Alabama, Arkansas, Florida, Georgia, Mississippi, Tennessee, Texas, Virginia, North Carolina, and Oklahoma participated.

There are scores of other individuals who have received awards for their untiring efforts to bring about better conservation practices on their farms and the farms of other County residents. The W. B. Wilkersons of Hickory Grove, Dave Cameron (now deceased) of York, and other farmers of the County could be cited as outstanding examples of achievement in conservation farming. These men have devoted many years of their lives to the building and maintenance of land on their respective farms.

The over-all picture of accomplishments is an impressive one; however, there are some specific problems, situations or conditions that have not been solved. There has been and is at the present a need for more humus or organic matter in the soil. The turning of sod or more long-time grass rotations would provide extra organic

matter and thereby greatly aid the utilization of commercial fertilizers.

The construction of waterways or terrace channel outlets has already been discussed at length, and many such outlets appear throughout the County. Some of these draws are planted to sericea or bahia grass or a combination of both and have proven their effectiveness in controlling excessive run-off from cultivated fields, but there are still many farms in the County that need this type of erosion control.

York County is fortunate in having a rather high amount of rainfall. In some areas proper water utilization is taking place, but most farmers are unable to utilize but a fraction of the water that falls on their farms. It has already been stated that more than 700 ponds have been built in the County within the past twenty years and are serving many good purposes such as aids in flood prevention, in conserving water for stock uses, in fire protection and for fish production, but during recent summer droughts many of these could have been used for irrigation purposes. Irrigation in most areas of the County can only be accomplished by means of aeration, and equipment for this kind of irrigation is much too expensive for the average farmer.

Straight row farming instead of working the land with the terraces is a very real problem. This results not only

in heavy losses of soil and water but damages terraces and decreases their effectiveness.

In some cases disposition of water from roads is not properly handled. Unprotected road cuts, fills, and road shoulders contribute silt to ponds, streams, ditches, and bottomland. The writer would like to see seed and mulch applied to every road bank in the state as well as the County. This can only be accomplished by the cooperation of the highway department, county technicians, and interested farmers. If the proposed treatments should be carried out, they would help alleviate the problems of field wash, stream congestion and flooding in many areas of the County. Along the main highways seed and mulch treatment is usually applied, but on most of the secondary roads little work is being done in regard to the treatment of road banks and proper outlets for ditch drainage.

Considerable progress has been made in woodland conservation. Many eroded fields have been set in trees and these are providing good ground cover for these areas. These trees are showing promise in their growth and in the near future they will be ready for thinning and pulpwood purposes; however, there are some present problems that need attention. In some sections an excessive amount of over-cutting is taking place, and hardwood control is needed in most cases.



The writer realizes that no one generation can be expected to solve all the problems that face the County, the state, and the nation in connection with soil and water conservation. Rebuilding land and proper maintenance of it is a job that cannot be accomplished within a period of a few short weeks, months or years, but a good foundation has been established and the writer would like to see these processes continue as rapidly in the future as they have in the past twenty years.

The writer was born and reared on a farm in York County and considers herself fortunate in having inherited from her forefathers a genuine love and appreciation for the soil. She has experienced years of plenty, when nature seemed to bestow her blessings without reservation; years of crop failures and disappointment, heavy rains that stole valuable elements from the soil, and the development of scientific knowledge and tools that were used to combat these devastating processes of nature. Through these experiences, the writer has come to realize that conservation of our natural resources cannot be left to individuals or groups of individuals. It will take the combined efforts of our society as a whole to master this problem. All have a stake and a continuing responsibility in safeguarding our resources. The need and value of these combined efforts can be summed up by the following article that appeared in a recent church bulletin.

"Consider this soil. It lies as far as the eye can see. It covers millions on millions of acres around the globe, yet it is a rare thing and cannot be replaced.

"This soil is a living thing. Yet it can be destroyed. This soil is a fruitful thing. Yet it can become sterile. This soil is God's gift to mankind, given unto our stewardship. Yet it can be despoiled and wasted.

"This soil produces crops and verdant grass and trees. It cannot be duplicated by chemistry and physics. This soil is an intricate house of myriad elements. Yet it is so common-place as to be known as dirt.

"It fills the flower pots in Manhattan, serves as a garden in Minnesota, and produces an orchard in California - this thing called soil. It is the spectacle of the Grand Canyon, the flatness of the Plains, and the rolling convolutions of the Shenandoah Valley - this thing called soil.

"It is the source of nourishment; it provides the means of our protection. God has willed we can live with it; we cannot live without it.

"Consider the soil. Consider it well."<sup>1</sup>

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<sup>1</sup>Methodist Church Bulletin, Mt. Vernon Methodist Church, Hickory Grove, South Carolina, May 30, 1960.

MILLERS-PALTS  
E-Z-B-R-S-E  
COTTON-COMMENT

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FOLLOWING  
SERIES  
WITNESS

COLON COMPANY  
E S E V A E  
M I T T E R S L T T S

APPENDIX

## Yerk County - S.C.D. - From Beginning Until Now - Accomplishments

Year	Farm Plans No.	Acres	New Terracing Miles	New Ponds No.	Woodland Thinning Acres
1959	97	16,099	15	56	3,855
1958	89	14,190	31	84	4,500
1957	92	14,326	36	114	4,407
1956	90	12,886	47	122	7,010
1955	61	7,973	36	103	6,475
1954	119	15,960	112	104	4,240
1953	126	17,252	134	49	3,527
1952	83	10,541	93	30	4,338***
1951	71	11,868	293	24	3,959***
1950	122	14,811	327	31	7,996***
1949	118	12,454	289	33	5,257***
1948	120	16,387	481	8	3,648***
1947	82	10,694	303	6	3,124***
1946	140	22,485	433	14	1,536***
1945	43	6,216	599	2	810***
1944	40	5,694	339	N.R.	N.R.
1943	41	6,066	175*	N.R.	800***
1942	40	7,500	135	N.R.	2,955***
1941 ) 1940 )	80	14,000*	185*	N.R.	N.R.
1939 ) 1938 )	63	11,500*	60*	N.R.	N.R.

\*Estimated figure based on 4-County District Report.

\*\*\*Woodland Thinning - Woodland Improvement or Woodland Management was carried on until recent years when thinning was entered into reports.

## York County - S.C.D. - From Beginning Until Now - Accomplishments

Year	Farm Plans No.	Plans Acres	Sericea & Kudzu Refs	Pasture Acres	Tree Plantings Acres
1959	97	16,099	N.R.	3,449	3,000
1958	89	14,190	N.R.	2,100	1,754
1957	92	14,326	561	3,043	569
1956	90	12,886	398	3,330	49
1955	61	7,973	129	2,116	414
1954	119	15,960	1452	4,335	265
1953	126	17,252	1530	4,409	302
1952	83	10,541	1072	3,933	134
1951	71	11,868	175	4,697	105
1950	122	14,811	981	4,634	91
1949	118	12,454	655	2,753**	91
1948	120	16,387	336	1,240**	96
1947	82	10,694	456	1,348**	43
1946	140	22,485	439	1,426**	116
1945	43	6,216	274	707**	52
1944	40	5,694	227	506**	N.R.
1943	41	6,066*	190*	460**	70
1942	40	7,500	250	435**	80
1941, 1940)	80*	14,000*	275*	175*	200*
1940, 1939)	75*	12,410*	250*	50*	336*
1939, 1938)	63*	11,500*	80*	15*	134*

\*Estimated figure based on 4-County District Report.

\*\*Pasture Practice - First report item Pasture Improvement until 1947 after that date Pasture Seeding was added, and that figure is listed above.