A GEOGRAPHIC STUDY OF CHOCTAW COUNTY, OKLAHOMA

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By

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PREFACE

From birth the author has lived on Marshall County farms varying from one-fourth to two miles in distance from the Red River and has lived along Boggy River and its vicinity since the building of the Denison Dam.

While farming Boggy bottom for three years (sharing in one glorious yield and two crop failures) and teaching in the one-teacher schools of the area for five years, the author became very familiar with the hospitable people, their customs, habits, hardships, and problems.

During the two years of boarding with Mr. Bill Trout, a retired cotton gin operator and owner, the author had the opportunity of hearing many conversations and comments on the changing economy of the county, particularly in cotton.

Being able to see the present farming transition and hearing the old-timers speak of "What we used to do here" or "How the old land used to produce," the author became interested in a study of the county.

By further study of the county, in relation to soils, people and natural resources of the surrounding area, the author is convinced the county has great possibilities for further development of the present trend if handled correctly.

The author wishes to express his gratitude to Dr. Edward E. Keso, Head of the Geography Department of Oklahoma Agricultural and Mechanical College, and Professor George S. Corfield, Oklahoma Agricultural and Mechanical College (Professor Corfield made a field study of the county with the author), for suggesting the subject and valuable suggestions in preparing this study.

The author is greatly indebted to Professor Carl C. Fite for furnishing information which was necessary for writing the "climate," and to Dr. David C. Winslow for help in the selection of reference material.

For conferences concerning the county, its industries, and resources, gratitude is expressed to C. G. Bowman, Planning and Organization Specialist, Oklahoma A. and M. College Extension Department: E. L. Whitehead, former Agent, Bryan County; Lee Craig, Southeastern District Agent: R. R. Perkins, Choctaw County Superintendent of Schools; Houston Ward, County Agent, Choctaw County; Bill Trout, gin operator; Bill Stephenson, Vocational Agriculture Teacher; Miss Florence Taylor, Choctaw County Health Nurse; Mrs. Williams, Choctaw County Health Statistician; Carlton Hall, Worley Wyley, Allen Morrison, Barton Joiner, and a score of other farmers; J. A. Gilbert, Superintendent of the American Creosoting Company, Hugo, Oklahoma; J. W. Trieschmann, President of the Choctaw Lime Company, Fort Towson, Oklahoma; Tom Landrum, Superintendent of Waldert Peanut Plant, Hugo, Oklahoma; Jeep Bennett, County Administration Officer, Hugo, Oklahoma; and the entire library staff of the Documents Department of the Oklahoma Agricultural and Mechanical College Library. Numerous other persons have given constructive advice and furnished valuable information which it is a pleasure to acknowledge.

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INTRODUCTION

The fitness of Choctaw County as a home for man is best measured by the number of people it can support, and by the number and standard of living of the occupants it sustains if it has long been occupied.

But to determine the future possible population and degree of prosperity with any degree of accuracy is a difficult, if not impossible, task because of the many unforeseen variable factors.

Since no county in Oklahoma or the surrounding area has reached this saturation point of people, time is involved and only our posterity can tell the favorability of the county for further settlement.

Both the natural environment and human factors must be added to the time element.

The environmental factors consist of:

(a) The degree of productivity of the soil, largely based on the topography of the land and climate; and the soil manipulator, man;

(b) The length of growing season, the amount and seasonal distribution of precipitation and the amount of insolation; and,

(c) The healthfulness of the region.[1]

Climatic factors are fairly constant but weather conditions fluctuate. Topography of the land is constant and climatic cycles are not noticeable, whereas soil productivity depends upon man's attention and the weather conditions which are both fickle.

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[1] George J. Miller and Almon E. Parkins, Geography of North America, p. 3.

The reader will see how the white race settled the Indian's land and adapted himself to the environment, how the wasteful slaughtering of timber and the farming practices have exposed the one time productive soil to ruthless erosion by weathering.[2]

The gradual decline in crop productivity and continuous acreage reduction of "King Cotton" is an indication that the farmer can no longer go out and "clear a new farm" once his yield decreases. The future security of the county depends upon how well he uses the land already under cultivation.

The purpose of this study has been to show the gradual shift in land utilization as erosion and time continue. Authentic information concerning only the county is very limited; however, informative materials on the area fit the county problem well and government bulletins and agricultural statistics supplied reliable county figures. It was necessary to make many personal interviews with people who were familiar with the county and its problems.

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[2] C. Landon White and Edwin J. Foscue, Regional Geography of Anglo-America, p. v.

CHAPTER II

LOCATION AND TOPOGRAPHY

Choctaw County, situated in southeastern Oklahoma, is separated on the south from the state of Texas by the meandering Red River. The distance along the stream as the crow flies, is thirty-five miles. It is bordered by McCurtain County on a fifteen-mile east boundary, while Atoka and Pushmataha Counties lie along forty-eight miles of the northern boundary. On the west, Choctaw County is separated from Bryan County along approximately four miles of Clear Boggy Creek, twelve miles of section line, and eleven miles of Whitegrass Creek.

The Constitution of Oklahoma provided for the boundaries of Choctaw County as follows:

> Beginning on the center line of Boggy Creek at its intersection with the township line between townships four and five South; thence east along said townships line to its intersection with the range line between ranges twenty and twenty-one East; thence south along said range line to its intersection with the state line between Texas and Oklahoma; thence westwardly along said state line to the center line of said Whitegrass Creek; thence up along the center line of said Whitegrass Creek to its intersection with the north and south center section line to its intersection with the center line of Clear Boggy Creek; thence up along the center line of Clear Boggy Creek to the point of the beginning. Hugo is hereby designated the county seat of Choctaw County.[1]

The County of Choctaw has an area of 790 square miles or 505,600 acres which makes it fortieth in size among Oklahoma counties.[2] The land area of Choctaw County estimated as 505,600 acres the years 1907-1935 inclusive, differs from the figure 501,760 acres for the years 1940 and 1945. The 3,840 acre decrease between 1945 and 1940 can be explained as follows:

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[1] Oklahoma Statutes 1941--Article 27, p. 8.

[2] The Oklahoma Almanac, 1931, p. 194.

A. The approximate land area reported for the state and for the counties for 1945-1940 resulted from a complete remeasurement of the United States, its individual states, and their counties, and therefore may be at a variance with figures shown for earlier censuses.[3]

B. Land in an individual farm occasionally is located in two or more counties. In such case, the entire farm was to be enumerated in the county in which the farm headquarters is located. As a result of this procedure, the acreage shown for "all land in farms" in some counties may be greater, and in others, smaller, than the area actually located in farms.[4]

C. All counties adjoining a meandering stream such as Red River will have their areas continually fluctuating as the floodwaters build up or wash out. The building of the Denison Dam, however, ranging from thirty to sixty miles from the west to east boundary of the county now controls the flooding of this area.[5]

Hugo, the county seat (34.1° N. Lat. and 95.31° W. Long.) lies sixty miles west of the Arkansas State line, twenty-four miles north of the Texas State line, and 155 miles southeast of Oklahoma City, the Capitol of Oklahoma.[6]

County politics had its influence on the policy leading to the formation of the county line between Choctaw and Bryan Counties. Lands between Red River and Whitegrass Creek (Lake West on map, p. 9), lie in Bryan County. Logical reasoning leads the observer to ask, "Why does the boundary of Choctaw County follow Whitegrass Creek and not Red River to its intersection with the north and south center section line across range thirteen east?" Forming one of the most fertile farming areas of either Choctaw or Bryan County, it appears that Choctaw County would want this productive district included within its boundaries. The Lake West Plantation was still being operated by

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[3] United States Census of Agriculture, 1940, "Land Area," p. 8.

[4] Ibid., "Enumeration of Farms with Land Located in More Than One County," p. 9.

[5] Conference, Mr. C. G. Bowman, Oklahoma A. & M. College Planning and Organization Specialist.

[6] W. H. Buckhannan, A. C. Anderson, and O. H. Brensing, "Soil Survey of Choctaw County, Oklahoma," U.S.D.A. Bureau of Plant Industry, Ser. No. 8, p. 3.

negro laborers when Oklahoma became a state. As the percentage of colored population in western Choctaw County was already high, the Lake West vote would have meant Republican officials for the west end of the county. The number of colored people in Bryan County was small and, therefore, both Choctaw and Bryan Counties have remained Democratic.[7]

The following paragraph is taken from the Oklahoma Writer's Program. "He" and "here" have reference to Captain Robert M. Jones and Sawyer, Oklahoma, respectively.

> He was a half-blood Choctaw, who established a store here as one of his many enterprises including stores at Scullyville and Lukfata, and six plantations with five hundred slaves. One of the plantations which is called Lake West, consisted of some five thousand acres of rich Red River bottom land planted to cotton; the others, strung along Red River were called Boggy, Rose Hill, Root Hog, Shawneetown, and Walnut Bayou. To carry his produce to market and bring in stocks for his stores, he also owned and operated two steamboats.[8]

The northern part of Choctaw County lies in the transition zone between the physiographic provinces of the Gulf Coastal Plains and the Ouachita. In the northern part of the county lies the latter and to the south lies the former. A large percentage of the county, however, comes within the Gulf Coastal Plains, which has in Choctaw County, a forested, rolling, sandy soil area with associated small prairie portions of heavy soils. Only a few stony ridges and rills, which appear in the northern part of the county, represent isolated outliers of the Ouachita Province.[9] (Fig. 1, p. 6) The county has a southwestward slope in which the major streams (Red, Boggy, and Kiamichi Rivers) have cut deep valleys.

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[7] Conference, Mr. Worley Wyley, Lake West farmer.

[8] Oklahoma Writer's Program, pp. 317-318.

[9] C. W. Honess, "Oil and Gas in Oklahoma, Atoka, Pushmataha, McCurtain, Bryan, and Choctaw Counties," Oklahoma Geological Survey Bulletin No. 40, pp. 83-85.

CHOCTAW COUNTY

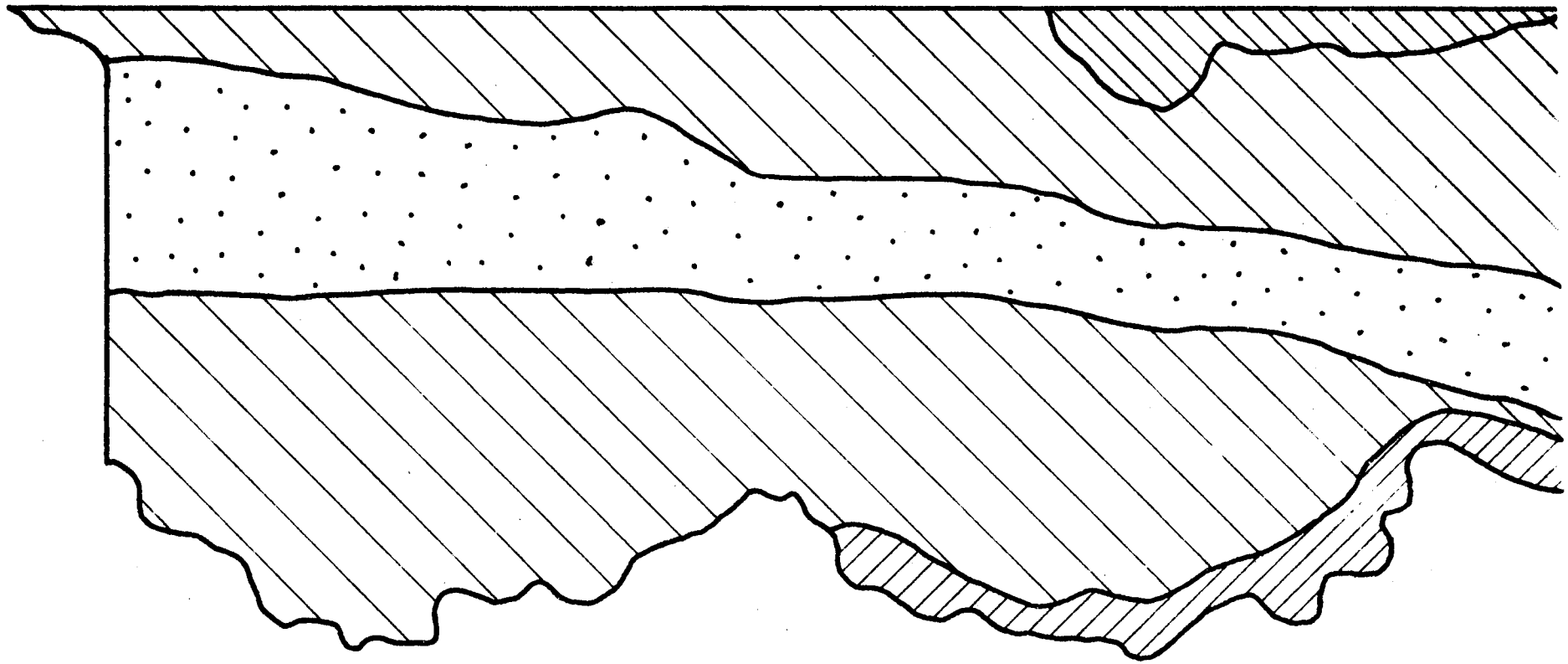

Figure 1

Cretaceous sandstone, limestone, and unconsolidated beds of sand, clay, and of sand clay underlie most of the surface of the county. The sandstone hills of the northern part of the area are of carboniferous sandstone while some high stream-formed terraces may be of Recent and possibly Quaternary Age.[10]

An east-west belt of rolling sandy forested land, comprising approximately two-fifths of the total area, crosses the southern part of the county. The belt consists chiefly of Woodbine sands of the upper Cretaceous Period. Red River tributaries have dissected this area to form an undulated topography, (Fig. 2, p. 9). Adjoining this belt on the north appears a prairie belt running east and west with formations of the Lower Cretaceous, largely Caddo, Bennington and Goodland limestone with some clays and shales of the Kiamichi and Bokchita. This belt occupies about one-fifth of the area and is continuous through the center of the county except for dissected sections along streams. Some prairie areas, such as Hunter, Crowder, and many other locally named parts of the Central Prairie, are isolated because of erosion. Trinity sands occupy the remaining two-fifths of the county forming an east-west belt extending beyond the borders of Choctaw County to the foothills of the Ouachita Province. Within this dissected, forested sandy portion occur many steep slopes and deep valleys.[11] The alternation of hard and soft strata in the Lower Cretaceous system produces a stairstep topography, with the escarpments facing north.[12]

Elevation above sea level of the county ranges from 650 feet in the northwestern part to approximately 380 feet in the southeastern part along Red River.

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10 C. W. Honess, Structural Materials in Different Counties," Oklahoma Geological Survey Bulletin No. 5, p. 144.

11 Buckhannan, Anderson, and Brensing, Op. Cit., p. 3.

12 L. C. Snider, "Geography and Geology of Choctaw County," Oklahoma Geological Survey Bulletin No. 27, p. 261.

Because of low elevation, bottom lands are flooded in spring months, thus making bottom land farming a gamble. Most of the county has sufficient natural drainage to allow successful cultivation.[13]

Red River, which forms the southern border of Oklahoma, has its source in the Permian Redbeds, sand dunes, and salt plains section of the Texas Panhandle and western Oklahoma.[14] Choctaw County cattle, as well as those from other areas along Red River, that drink the water will take very little salt because of the salinity of the water. Sand bars are colored white by a deposition of salt after every flood recedes. Meandering of the streams has given birth to the floodplains (first and second bottoms) by reducing the velocity of the silt-laden overflow waters permitting sedimentation. The straight portions of the stream are abraded because the sluggish water permits the channels to become sand-choked and, as a result, the channels shift continually. The concave portions of the banks of the Red River are becoming more concave and the convex portions are becoming more convex as a result of the washing out and building up effect of the stream. The channel of Red River becomes shallow in dry weather periods, and may at times go almost dry. Large quantities of water are moving slowly through the sand at this stage.[15] Navigation without dredging is impossible to everything except small craft. Red River is a tributary of the Atchafalaya which drains into the Gulf of Mexico to the west of the Mississippi River.[16]

Tributaries to Red River in Choctaw County are Muddy Boggy, Clear Boggy,

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[13] Buckhannan, Andersen, and Brensing, Op. Cit., p. 4.

[14] Snider, Op. Cit., p. 32.

[15] Ibid., p. 32.

[16] Wallace A. Atwood, The Physiographic Provinces of North America, p. 40.

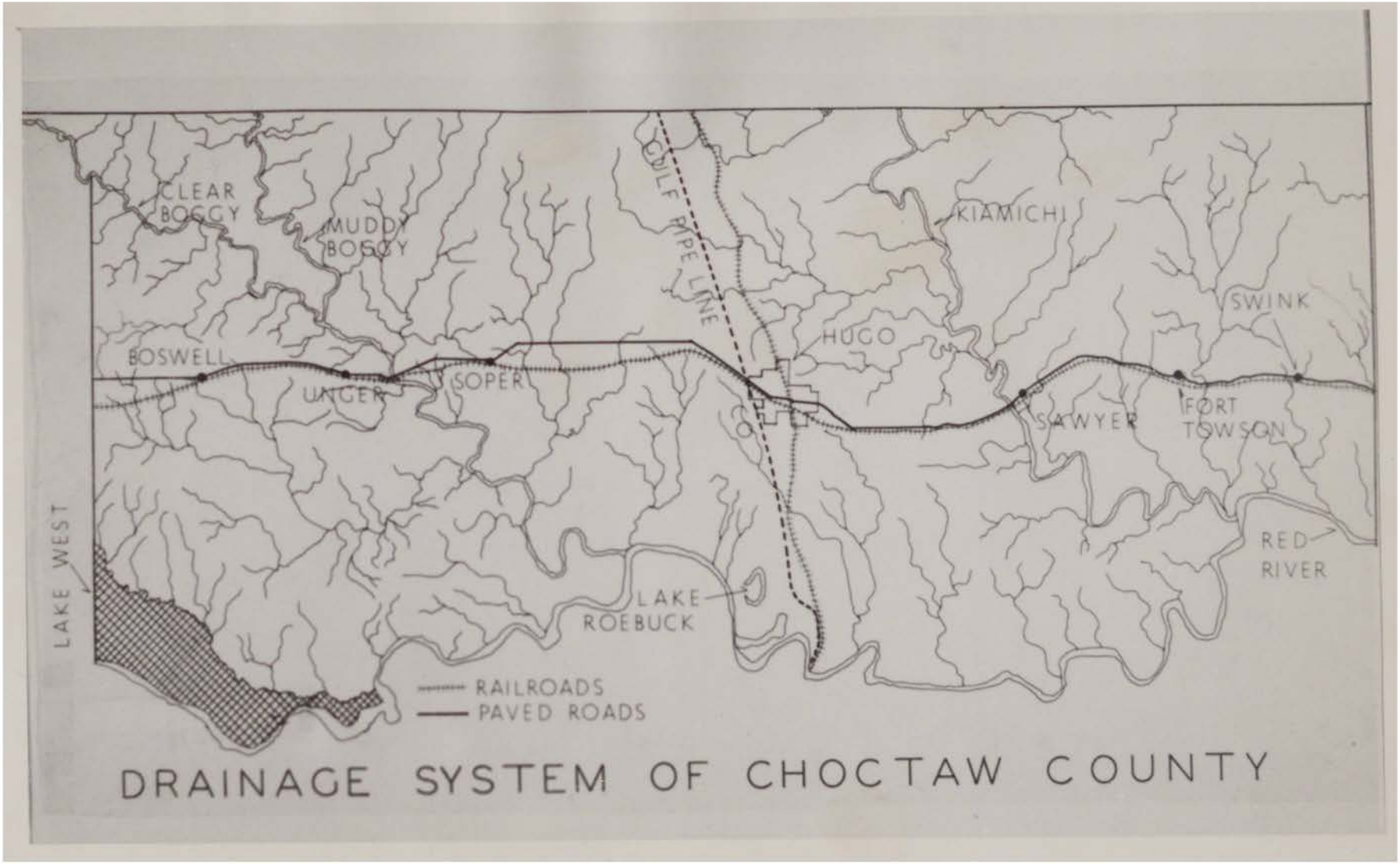
CLEAR BOGGY
MUDDY BOGGY
GULF PIPE LINE
KIAMICHI
SWINK
HUGO
BOSWELL
UNGER
SOPER
SAWYER
FORT TOWSON
RED RIVER
LAKE WEST
LAKE ROEBUCK
RAILROADS
PAVED ROADS
DRAINAGE SYSTEM OF CHOCTAW COUNTY

Figure 2

and Kiamichi Rivers and their many tributaries. Both Clear and Muddy Boggy Rivers have their origin in south central Oklahoma near Ada. Rain water from the north part of the College Administration Building at Ada flows into Muddy Boggy while the catch from the south side of the building must find its way to Clear Boggy.[17] The Boggies flow in a southeastwardly direction and converge in the west central part of Choctaw County. From the point of confluence, the one stream follows the same general direction to Red River, (Fig. 2, p. 9). The Boggy Rivers never become sand-clogged as Red River does because the muck is more of a Kaolin type.

Channels are always filled with tree tops and snags of every description. The fishermen who seine these rivers usually "set" the seine in brush-free waters and go up or downstream on the bank, then get into the water and go toward the seine making all the noise possible so as to drive the fish to the seine. A few men are left with the seine and immediately encircle the fish or they will turn and dart past the round-up men as soon as they hit the seine. The seiners wear old shoes in the water to protect their feet from bois'd'arc thorns, jagged-edged rocks, snags, etc.

The banks of the Boggies are precipitous and the narrow log-jammed channels prevent rapid disposal of water, thus causing many overflows in high water periods. Boggy Bottom land forms the most fertile soil of Choctaw County and produces abundantly in dry years. The suspended materials of the dark, muddy conglomerated overflow water coagulates on vegetation at flood stage and livestock are unable to graze on the mud-laden range grass until after a cleansing rain.

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[17] Dr. John W. Morris, Class Work, Professor of Geography, Southeastern State College, Durant, Oklahoma.

The Kiamichi heads in the Ouachita mountains near the Oklahoma-Arkansas state line and flows west some sixty miles, then turns south and wends its way through east-central Choctaw County in a northwest-southeast direction. "Kiamichi forms the only important break of gap in the western part of the Ouachita mountains and on this account, one line of the St. Louis and San Francisco Railroad has been built along it for many miles."[18]

This river flows through a rough timbered country in which the thin soil of this sandstone area produces clear water for the stream. Many springs along its source make the water of the Kiamichi a few degrees cooler than the other streams of the county.[19] This lower temperature enables game fish to live and, as a result, Kiamichi is noted as a fishing stream for sport and not for commercial use.

The many shallow valleys, eroded by tributaries and branches of the major drainageways, have left small isolated areas which have comparatively smooth surfaces. Such level areas are located in alluvial valleys of the major streams on strips in east-west belts. These extend through the central part of the county and form isolated areas on divides between drainageways.[20]

As a result of its location in Southeastern Oklahoma, along an easy river route, Choctaw County received some of the earliest inhabitants of the state.

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[18] Snider, Op. Cit., p. 34.

[19] Honess, Op. Cit., p. 12.

[20] Buckhannan, Anderson, and Brensing, Op. Cit., p. 5.

CHAPTER III

HISTORY OF CHOCTAW COUNTY

Choctaw County had been under the auspices of two governments (France and Spain) prior to the Louisiana Purchase. The United States Government purchased from France all of what is now Oklahoma except the Panhandle in the year 1803. Prior to this, French traders and trappers had explored and settled along the rivers; consequently, we still have many French names in southeastern Oklahoma.[1]

In 1802 Georgia agreed to give up her claim to the "Western lands" and the government promised to remove the Indians. Pressure groups immediately prepared for the Indian emigration from Georgia and neighboring states after the Louisiana Purchase and plans were well under way only to be interrupted by the War of 1812.

The Choctaws originally occupied a large region in Mississippi and from time to time ceded away much of it just as other tribes had done. At the "Treaty of Doak's Stand" in 1820 they exchanged land in Mississippi for land between the Arkansas and Canadian Rivers on the north and the Red River on the south. This area comprised all of Oklahoma south of the Canadian River and a large portion of southern Arkansas.

In 1825 the Choctaws ceded that portion of their territory in Arkansas, and, under the influence of Colonel LeFlore, the "Treaty of Dancing Rabbit Creek" was signed in 1830. This treaty provided that the Choctaws were to cede "all" lands east of the Mississippi and move west.

They were given the area between the Canadian and Arkansas on the north and the Red River on the south, as far west as United States lands went (then

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[1] L. C. Snider, "Geography and Geology of Choctaw County." Oklahoma Geological Survey Bulletin No. 27, p. 143.

the 100th meridian) and the government promised "never to include their country within the limits of any state or territory."

In 1837, the Chickasaws and Choctaws signed a treaty at Doaksville near Fort Towson giving the Chickasaws permission to live on Choctaw territory but this proved unsatisfactory and, in 1855, the Chickasaws were given land to the west of the Choctaws. Tishomingo became the Chickasaw capitol and Tuskahoma, the Choctaw capitol. (Fig. 7, p. 33)

A larger part of the Choctaws joined the South in the Civil War and suffered severely at the peace treaty. They were forced to free their slaves and grant each freedman forty acres of land, give rights of way to railroads, and cede "Western lands" (west of the 98th meridian) to friendly Indians. They retained 10,000 square miles in the southeastern part of the state. More and more whites from neighboring states (Arkansas, Louisiana, and Texas) encroached upon the Indian's land and by 1895 three-fourths of the total population were whites. Green McCurtain, last principal chief of the Choctaws, imposed a hundred dollar tax on marriage licenses to prevent the whites' intermarrying the Indian women, but this failed its purpose.

By 1900, the United States Government had complete control of the Indian territory (eastern Oklahoma was called Indian Territory after 1890) and the Curtis Act, June, 1898, abolished Indian tribal courts and laws and placed the Indian under the white man's jurisdiction.[2]

In 1896 Congress passed a law directing the Dawes Commission to make up tribal rolls containing names of the members of all the Five Civilized Tribes. The allotments began in the spring of 1903 with the Choctaw Land Office located at Atoka.[3]

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[2] James S. Buchanan and E. E. Dale, History of Oklahoma, p. 267.

[3] Angie Debo, The Rise and Fall of the Choctaw Republic, p. 277.

The following represent the total number of citizens on March 4, 1907:[4]

Choctaws		
Full bloods	7,076	
Mixed bloods, three-fourths or more	706	
Mixed bloods, one-half to three-fourths	1,636	
Less than one-half, including whites	9,568	
Total		18,981
Freedmen		5,994
Mississippi Choctaws		
Full bloods	1,344	
Mixed bloods, three-fourths or more	85	
Mixed bloods, one-half to three-fourths	27	
Less than one-half, including whites	183	
Total		1,639
Grand Total		26,614

These allotments were to be inalienable and non-taxable for twenty-one years, but these provisions were never carried out and after 1908 Congress passed laws removing all restrictions from allotments of intermarried whites, freedmen, and mixed bloods who had less than one-half Indian blood. This land has rapidly moved from Indian hands and in 1947 only 28,000 acres, approximately five percent of the total, were tax-exempt.[5]

Many counties in eastern Oklahoma were named for the Choctaws and many, many smaller places within these counties received Indian names--Pushmataha, Hudson, Wright, McCurtain, Folsom, Wade, LeFlore, Atoka, and Durant.

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[4] Ibid., p. 276.

[5] Figures given by Hal Ellis, Choctaw County Assessor.

CHAPTER IV

THE PEOPLE

No uniformity appears in the population growth of Choctaw County since statehood. The 17,000 population increased twenty percent from 1907 to 1910, forty-seven percent from 1910 to 1920, and since that date the influx and emigrations show a population growth and decline over the years.

1. Migration

Table I

Population Changes of the White, Negro, and Indian for Choctaw County Compared with That for the State of Oklahoma. (Taken from census figures for years shown)

Population	1907	1910	1920	1930	1940	1943*
White	12,680	16,211	26,733	17,141	22,110	
% White	73.3	74.3	83.2	70.1	78.0	
Negro	3,329	4,303	4,242	4,994	5,207	
% Negro	19.1	19.7	13.2	20.7	18.3	
Indian	1,331	1,348	1,169	2,007	1,071	
% Indian	7.6	6.1	3.6	8.3	3.7	
County Total	17,340	21,862	32,144	24,142	28,358	20,530
% Change		20.7	47	-24.9	17.9	-27.6
% Change (State)		17.2	22.4	18.1	-2.5	-8.3

As previously stated, Texas and Arkansas supplied a large percent of the emigrants to Choctaw County with other southern states supplying a small percent, thus giving this area the name, "Little Dixie."

National prosperity and the county population movement formulate an inverse ratio. Prosperous times in the state and nation mean fewer people for the county but an upset national economy favors an influx of population.

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* O. P. A. Ration Book Figures.

Note the 25 percent decrease for the county and 18 percent gain for the state during the twenties and the 18 percent gain for the county and three percent loss for the state over the thirties. The Oklahoma oil boom in the twenties called the Choctaw laborer but the depression and droughts encouraged a return to subsistence.[1]

Log and slab shacks made from local forests dot the stream banks and old fields as the lean years intensify. The occupant grows his corn for meal, raises a little cow and chicken feed, produces garden vegetables to consume fresh or to can, supplies his family with game and fish from the streams and woodlands, berries from the wild patches, runs his milch cows on the free range, and leaves inflation to the rest of the world. Many times cattlemen will "loan" families a few cows to milk for their care and feed.

The county may be poor in resources compared with other sections during periods of prosperity, but, through the depression years, kind to the man who is down and out. He can work on the WPA and tide himself over until the business cycle makes an upward swing.[2]

The percent and number of colored population remains approximately the same but the Indian number decreases. The Indian population decreased from eight to four percent between 1930 and 1940. The Indian and white intermarry and thus the Choctaw Indian may become what is called the "Vanishing American." Table I, p. 15, indicates that the Indian and negro are more sedentary than the white. Note the Indian and negro percentage decrease for 1920 and the 47 percent increase for the county population. As the white emigrates, the percent

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[1] Conference, Mr. Houston Ward, Choctaw County Agent.

[2] Oklahoma State Planning and Resources Board, A Social and Economic Survey of Six Counties in Southeastern Oklahoma, p. 99

of colored and Indian increases; likewise, immigration by whites means percentage decrease for the other two peoples.

These periodical moves have oscillated the population density from a minimum of fifteen in 1907 to twenty-eight in 1920. Native whites dominate the county. The census reported one-tenth of one percent as foreign-born white in 1940.

2. Character

The rural population predominates in Choctaw County as shown below. Manufacturing employed 124 persons in the county in 1939.[3]

Table II

Showing the Number and Percent of Rural and Urban Population for the Years Indicated as Given by the Census Figures. (Urban, more than 1,000 people)

	1907	1910	1920	1930	1940
Total Urban	2,676	4,582	6,368	5,272	5,909
% Urban	15.4	30.9	19.5	21.8	20.8
Total Rural	14,664	17,280	25,775	18,870	22,449
% Rural	84.6	79.1	80.5	78.2	79.2

Hugo, the county seat, is the only town with a population of 5,000. The remaining towns, Boswell, Soper, Fort Towson, and Grant, each have a population of less than 1,000.

3. Income

Table III

Showing the Per Capita Income for the United States, Oklahoma, and Choctaw County for the Years Indicated. (Figures--in dollars--taken from the Statistical Abstract of the United States, 1947)

	1929	1933	1939	1941	1944	1945
United States	680	368	539	693	1,133	1,150
Oklahoma	455	226	340	417	860	889
Choctaw County	250	125	200	175	475	485*

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[3] Rand and McNally, Commercial Atlas and Marketing Guide, 77th ed., p. 323.

* Figures obtained by adding all the receipts from farm products, livestock timber products, and other goods marketed, plus all salaries and wages of all federal, state, and county employees in the county divided by total population. Not official.

Fig. 3a. A Saturday afternoon at Boswell, Oklahoma. People come to town on Saturday to visit and buy the family groceries for the following week. Note the broad-tired, narrow-tired and iron-wheeled wagons.

Fig. 3b. A fish stand on Highway 70. The proprietor nets the fish from Boggy River (less than 100 yards from the stand) and packs chipped ice around his night's catch to sell throughout the day. His container is a wooden box approximately six by three by two feet.

Table III clearly shows why the younger people leave the county and seek employment as soon as they reach working age. The county per capita income figures approximately one-third that for the nation and five-ninths that of the state.

Table IV

Showing the Value of Farm Products Sold and Used by Farm Household in 1939 as Given by the Bureau of Census.

Dollars	% of County Farms	% of State Farms
Under 250	37.0	22.0
250 to 399	23.2	14.8
400 to 599	17.0	15.7
600 to 999	14.7	19.4
1,000 to 1,499	4.9	11.5
1,500 to 2,499	1.8	9.0
2,500 to 3,999	.9	4.1
4,000 to 5,999	.2	1.7
6,000 to 9,999	.2	.8
10,000 to 19,999	----	----
20,000 and up	.1	.4

Over sixty percent of the Choctaw farmers fall into the lower two brackets. These figures mean that thirty-seven percent of the farmers operate a whole year on less than $250, and that sixty percent operate on less than $600 per year.

The county figure excells that of the state until the $500 value is reached, then the state excells the county figure. This indicates that the Choctaw County farmer operates on a small scale. It is estimated that the average tenant has $100 or less invested in mechanical equipment.[4]

4. Housing

Rural dwelling improvement also ranks low in the county. The state ranks in the lowest one-fourth of all states with respect to possession of

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[4] Oklahoma State Planning and Resources Board, Op. Cit., p. 99.

most of the housing items reported.[5] High proportions of farm dwellings are without adequate room space, refrigeration, running water, flush toilets, radios, and other items.[6] (Note Figure 4B, p. 24)

Table V

Housing Conditions for Rural and Non-Rural Farms for 1940 as Taken from the Sixteenth Census

	Rural Non-farm	Rural Farm
Number of dwelling units in county	1,718	3,748
Percent owner occupied dwellings	39.4	32.0
Population per occupied dwelling	3.75	4.54
Dwellings needing major repairs	960	2,248
Average value owner occupied dwelling	$443	$1,293
Running water	344	51
Flush toilets	45	28
Bathtub or shower	99	31
Electric lighting	451	70
Mechanical refrigeration	173	48
Ice refrigeration	430	843
Gas and electricity for cooking	17	5
Autos		694
Telephones		57
Radios	633	1,279

The average replacement value of dwellings amounts to $574 in southwestern Oklahoma as compared with $189 for southeastern Oklahoma. (Western Oklahoma has reference to studies made in Jefferson and Tillman Counties and Eastern Oklahoma refers to studies made of the eastern third of Choctaw County and similar portions of six more adjoining southeastern counties.)

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[5] Robert T. McMillan, "Farm Housing in Southern Oklahoma," Oklahoma A. & M. College Technical Bulletin, B-290, p. 7.

[6] Ibid., pp. 14-16.

Table VI

Percent Distribution of Dwellings Surveyed According to Value, by Farm Tenure Status

Value (Dollars)	Southeastern	Southwestern
1- 200	53.0	9.6
201- 400	25.1	23.8
401- 600	9.7	19.2
601- 800	5.1	11.3
801-1000	3.8	10.7
1001-1400	2.4	6.5
1401-1800		7.6
1801-over		11.3
Median Value (Dollars)	$189	$574

Note the 53 percent of dwellings valued less than $200 for Southeastern Oklahoma and the 10 percent for Southwestern. Also note the decrease in percent value for Southeastern and the increase up to $1,000 in the West. This is partly due to the fact that many people build inexpensive dwellings in the timbered Southeastern district and the lack of timber in the Southwest necessitates the erection of stucco buildings.

Great differences occur in the two sections of the state in the possession of household equipment and housing items. (See Table VII, p. 22, and Table VIII, p. 23) Almost 30 percent more southwesterners have living room suites and carpets; 44 percent more have circulating heat. Kerosene fuel is common in the Southwest and wood in the Southeast. Compare the eight percent mechanical refrigeration for the Choctaw area and 38 percent for the Southwest; also, that only three percent in the Southwest have no refrigeration and 52 percent in the Southeast have none. The number of persons using the washtub and rub-board is over 60 percent higher in the Southeast and automobiles belong to 60 percent more persons in the Southwest.

Table VII

Percent of Families in Southeastern and Southwestern Oklahoma, Classified by Farm Tenure Census, Having Specified Housing Items[7]

		Percent of Families with Specified Item	
		Southeastern	Southwestern
1.	Exterior construction:		
	Horizontal siding (Frame)	48.9	85.4
	Vertical siding (Frame)	44.9	11.5
	Brick, stion, or stucco log	4.0	3.1
2.	Houses painted	28.6	70.0
3.	Solid wall foundation	10.4	49.2
4.	Roofing: Shingle or composition	80.1	97.0
	Sheet iron or tin	18.0	2.8
	Tar paper	1.9	.3
	Leaky roof	29.6	25.7
	Eaves trough	1.6	54.2
5.	Chimney: Flue	56.1	74.3
	Chimney	19.6	22.9
	Stovepipe	24.3	2.8
6.	Screens	67.9	96.6
7.	Interior wall construction:		
	Ceiled	34.0	64.6
	Wallboard	5.9	24.2
	Unceiled	58.8	2.2
8.	Water piped into dwellings	2.4	13.9
	Hot and cold	.8	6.8
9.	Kitchen sink	3.5	33.4
10.	Toilet: Outdoor, ordinary	91.9	62.7
	Outdoor, sanitary		25.9
	Indoor	2.2	7.7
	None	5.9	3.7
	Septic tank or cesspool	2.2	9.6
11.	Bathroom	2.4	7.1
12.	Basement	.8	3.4

[7] Ibid., pp. 14-16.

Table VIII

Percent of Families in Southwestern and Southeastern Oklahoma, Classified by Farm Tenure Census, Having Specified Household Equipment[8]

	Article	Percent of Families Having Specified Article: Southeastern	Southwestern
1.	Living room suite	26.1	65.4
2.	Rugs or carpets	65.8	92.6
3.	Heating stove	79.7	43.3
	Gas or oil circulator	1.4	45.2
4.	Lighting:		
	Kerosene lamps	79.5	44.7
	Electric lights	4.6	37.7
	Mantle or pressure lamps	15.9	17.6
5.	Kitchen range	67.6	55.6
6.	Kitchen stove	32.4	44.4
7.	Kitchen fuel:		
	Kerosene or gasoline	9.2	72.2
	Gas or electricity	1.9	23.2
	Wood or coal	88.9	4.6
8.	Refrigeration:		
	Ice	39.9	39.2
	Mechanical	8.8	38.6
	None	52.3	3.1
9.	Laundry facilities:		
	Tubs	77.8	14.9
	Power washer	19.2	33.5
	Electric or fuel iron	21.8	67.9
10.	Telephone	2.4	25.3
11.	Carpet or electric sweeper	.8	7.7
12.	Automobiles	22.6	82.7

[8] Ibid., pp. 19-20.

Fig. 4a. DDT Station near Hugo, Oklahoma. Note the insecticide container at the left and the army trucks near the building. The DDT is emptied into 55-gallon barrels and carried to different parts of Choctaw and McCurtain counties to be used by the sprayers. The spray is diluted to 5 percent DDT; therefore, a barrel will last several days.

Fig. 4b. Highway 70, one mile from the west entrance to Choctaw County. Note the undulating topography characteristic of the county. A rolling topography like this is very conducive to all forms of water erosion. Too many houses in the county are dilapidated as the one in the picture.

5. Health

Miss Florence Taylor, Choctaw County Public Health Nurse, states that the No. 1 killer for the county is heart diseases which account for a death rate of 140 per 100,000 deaths.[9] Next in order come cerebral hemorrhage, nephritis, and cancer, with a death rate of 70, 63, and 45 respectively.[10]

> Choctaw and McCurtain Counties rank the highest in the state in the percent of venereal cases. Dr. Gregg, the present county health doctor, is a venereal specialist and was sent to the county because of that fact. The County Health Unit treated 80 new cases of syphilis and 98 new cases of gonorrhea in 1947. This included the patients who were not financially able to pay for private medical attention. Of those who are financially able to employ a private doctor, the county has no record.
>
> This is another reflection of the low economic status of the county. The county just doesn't have sufficient capital to provide desirable and adequate social facilities for the young people.
>
> All the people have malaria to a certain degree but chills aren't too prevalent in the area. Malaria saps the strength and vitality of the host and rids him of all ability or desire to be energetic during the summer months. Thus, his sluggish appearance causes the outsider to believe him to be lazy when the truth is, he just doesn't feel like working.[11]

During the summer of 1944, the government inaugurated a larvaciding malaria control program by treating water bodies with oil and Paris green and the following year the homes of Choctaw and McCurtain Counties were sprayed with two and one-half percent DDT. The percent was increased to five in 1946. The sprayers make the round every three months, thus giving each home two sprayings during the mosquito season.

The spraying unit is located on Highway 70, approximately two miles east of Hugo. (Figure 4A, p. 24) A corps of army trucks and pickups are stationed here and in the spring each spray team takes a truck and uses it throughout

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9 Conference, Miss Taylor, Choctaw County Health Nurse.

10 Conference, Mrs. Williams, Choctaw County Registrar of Vital Statistics and Public Health Nurse.

11 Conference, Miss Taylor, Op. Cit.

the season. The government formerly made no charge for the spraying, but in 1947 the individual contributed a pro-rated share, a set amount per room in each home, usually twenty-five cents per room. Miss Taylor stated that the control method is very effective and has reduced malaria in the area considerably.

Choctaw County had three hospitals, ten physicians, and four dentists in 1944. This gives 2,836 persons per physician and 7,090 persons per dentist.[12] A ratio of one physician per 1,500 population and one hospital bed per 222 persons is generally recognized as a minimum for adequate medical and hospital care.[13]

The Oklahoma Planning and Resources figure gives one hospital bed per 1,802 population for Choctaw County. The county is outranked by only Lincoln and Okfuskee Counties in the lack of bed facilities and only Cimarron and Atoka Counties in number of persons per physician.[14] Miss Taylor says the doctors and dentists go where the people are financially able to pay their doctor bills.

6. Education

Seventy white and 22 separate schools comprise the educational institutions of Choctaw County. Seven high schools, one Indian Vocational School, located at Goodland, and 84 grade schools existed at the beginning of the war.

Nineteen of the 31 one-teacher white schools disorganized during the last eight-year period and 10 of the 20 two-teacher schools have been reduced to one teacher. A school must maintain an average daily attendance of 13 to receive state aid for one teacher the following year and 26 for two teachers.[15]

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12 B. A. E. Figures.

13 Agriculture of Oklahoma, "Health," p. 12.

14 Ibid., pp. 13-17

15 "School Finance and Transportation Laws," State Board of Education Bulletin, No. 145-E, p. 19.

Approximately 62 percent of Choctaw County's schools cost is supplied by state aid; therefore, loss of attendance means a loss of a teacher or school.

This, too, depicts emigration of the county's population during prosperous times. This year, 1948, the county lost only four schools and gained two teachers, which may be an indication that the people are beginning to return to the county.

Thirty-three teachers serve the 22 negro schools in the county.

Table IX

Choctaw County Compared with a High and Average Valuation Rank, State Aid, and Cost Per Pupil Per Average Daily Attendance for the School Year of 1943-1944[16]

County	Valuation per Pupil Enumerated	Rank	% of Total Cost Paid by State	Cost per Pupil
Choctaw (low)	$1,378	75	62.49	$ 75.90
Payne (average)	4,248	36	16.08	84.79
Cimarron (high)	6,671	1	5.16	150.87

This table shows that Choctaw County is in the fourth quartile, or lowest, in valuation per pupil enumerated. The per pupil valuation for the state was $4,417 while that for the county reached $1,379.

The highest counties lie in the Northwestern portion of the state, the medium range, from the Northeast to Southwest, and the lowest in the Southeastern section.[17]

The median (half-way point in scholastic attainment, or years schooling completed) school years completed for all persons over 25 years of age for Choctaw County is 6.8 as compared with 8.6 for the whole state. McCurtain County, only, ranks lower than Choctaw County in this respect. High negro and

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[16] Oklahoma State Planning and Resources Board, Op. Cit., p. 189.

[17] Conference, Mrs. Tommie Joe Walker, Former Draft Board Secretary, Oklahoma City, Oklahoma.

Indian percentage accounts for this in part.

The following table shows clearly how the underprivileged retard the improvement. Table X is for Oklahoma as a whole. Choctaw County has a bigger percentage drag as approximately 20 percent of the population is colored, whereas only 7.2 percent of Oklahoma people are negroes.

Table X

Persons Twenty-Five Years and Over, by Years of School Completed, Race and Sex for the State, as Shown by the United States Bureau of Census, 1940

	All Classes		Native White		Negro	
	Male	Female	Male	Female	Male	Female
Median School Years Completed	8.2	8.6	8.2	8.7	6.5	7.4
Percent less than Five Years Completed . .	16.0	10.9	14.1	9.1	33.5	24.4

Choctaw County had the highest percent of illiteracy in Oklahoma during the war.[18] If a high percent of negroes lowers the county's educational mean, then why not educate the colored as well as the whites?

If the low income of many people makes them ready to move at the opportunity of finding a job, if it makes the many dwellings dilapidated and improperly furnished, the health poor, and education low, then, shouldn't the county take precautionary measures to improve this picture in the immediate future?

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18 Ibid.

CHAPTER V

CLIMATE

The climate of Choctaw County is of the Continental type with pronounced seasonal ranges in both temperature and precipitation. Blair locates Choctaw County only fifty miles from the southern margin of the Subtropical Humid climate,[1] (Fig. 5, p. 30) while Trewartha, another noted climate authority, locates the county well within the Subtropical Humid climate.[2] The area is a climatic transition zone and this is affected by both the Humid Continental "warm subtype" (ICW) and Humid Subtropical Climate (STH). The winters are mild and short except for occasional severe northers of short duration that may freeze the ground to a depth of two or three inches. Extremely cold weather is seldom experienced. Snowstorms are infrequent; however, snow sometimes covers the ground for a day or two.[3] The average annual snowfall of Choctaw County is 2.7 inches, varying from zero to 7 inches.[4]

The mean winter temperature, (December, January, and February) is 45.4° F. A minimum of -3° F. has been recorded but it seldom falls below 20° F.

The summers are long, with occasional periods of high temperatures and low relative humidity. The mean summer temperature, (June, July, and August) for Choctaw County is 81.1° F. A maximum of 118° F. has been recorded, but the summer high seldom exceeds 105° F.

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1 Thomas A. Blair, Climatology, p. 149.

2 Glenn T. Trewartha, An Introduction to Weather and Climate, Plate I.

3 R. J. Martin & J. B. Kincer, Climatic Summary of the United States, Section 43, "Climatic Characteristics," p. 2.

4 W. H. Buckhannan, A. C. Anderson, and O. H. Brensing, "Soil Survey of Choctaw County, Oklahoma," U.S.D.A. Bureau of Plant Industry Series No. 8, p. 6.

US CLIMATIC ZONES

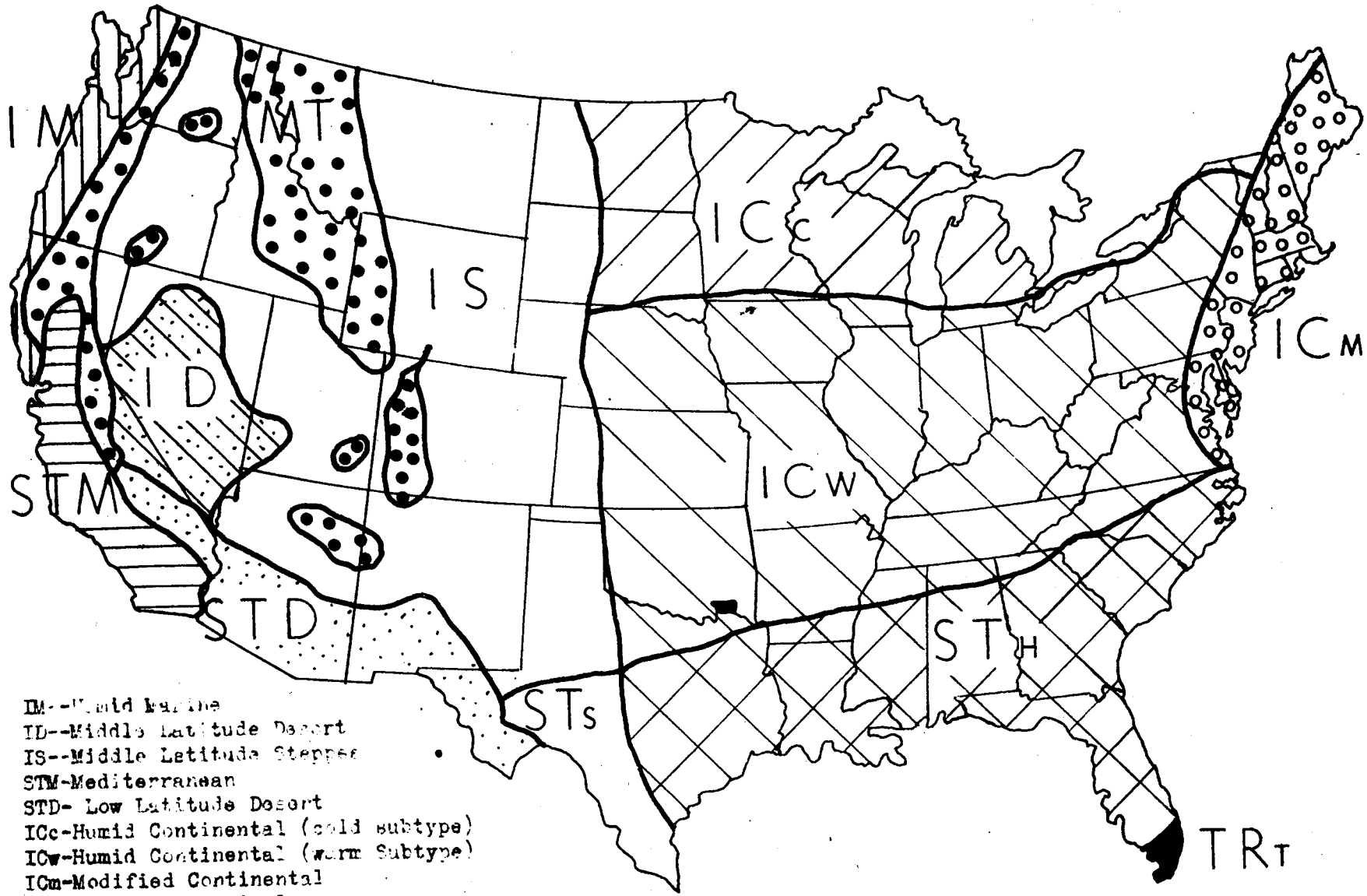

Figure 5

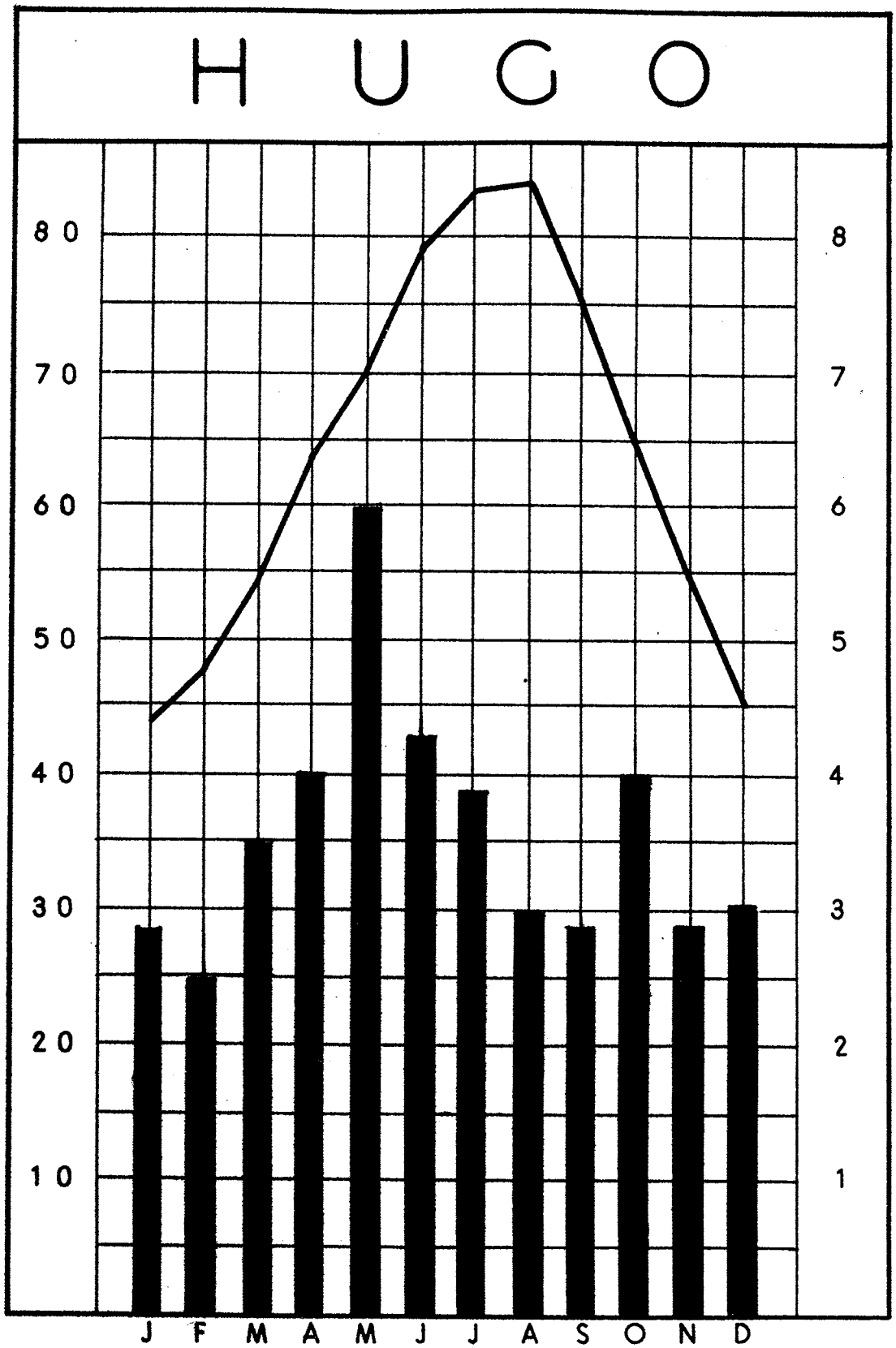

Figure 6

Table XI

Prevailing Wind Direction, the Mean, Absolute Maximum, Absolute Minimum, and Variation for Temperature, the Mean Precipitation, the Amount of Precipitation for the Driest and Wettest Year, and the Variation in Precipitation[5]

	Temperature (Fahrenheit)					Precipitation (Inches)			
	Prev. Wind	Mean	Abs. Max.	Abs. Min.	Variation	Mean	Amount Driest Year-1917	Amount Wettest Year-1926	Variation
D.	N	45.1	80	9	71	3.05	.12	4.88	4.76
J.	S	43.4	81	-3	84	2.81	1.63	5.00	3.37
F.	N	47.6	86	8	72	2.48	1.86	1.75	-.11
Winter	N	45.4	86	-3	89	8.25	3.61	11.63	8.02
M.	S	54.2	95	17	78	3.47	2.82	5.30	2.48
A.	S	63.7	96	26	70	4.02	5.53	3.10	-2.43
M	S	70.7	98	37	61	5.98	2.30	5.90	3.60
Spring	S	62.9	98	17	81	13.47	10.68	14.30	3.65
J.	S	78.7	105	41	64	4.28	2.46	4.68	2.22
J.	S	82.2	109	52	57	3.88	3.33	17.10	13.77
A.	S	82.3	108	55	53	2.93	2.86	8.93	6.07
Summer	S	81.1	109	41	68	11.09	8.65	30.71	22.06
S.	E	75.9	104	40	64	2.82	1.60	2.02	.42
O.	E	65.0	97	19	78	4.00	0.00	5.88	5.88
N.	E	54.5	87	20	67	2.83	3.95	2.03	-1.92
Fall	E	65.1	104	19	85	9.65	5.55	9.93	4.38
Year	S	64.1	109	-3	112	42.55	28.46	66.57	38.11

The prevailing wind direction for Choctaw County is southerly and, consequently, much influence on this area is exerted at times by the moist air from the Gulf of Mexico. During the winter months, northerly winds predominate.[6] (Table XI, above). March is the windiest month with a mean velocity of twenty-five miles per hour,* while the annual mean is approximately nine miles per hour.[7]

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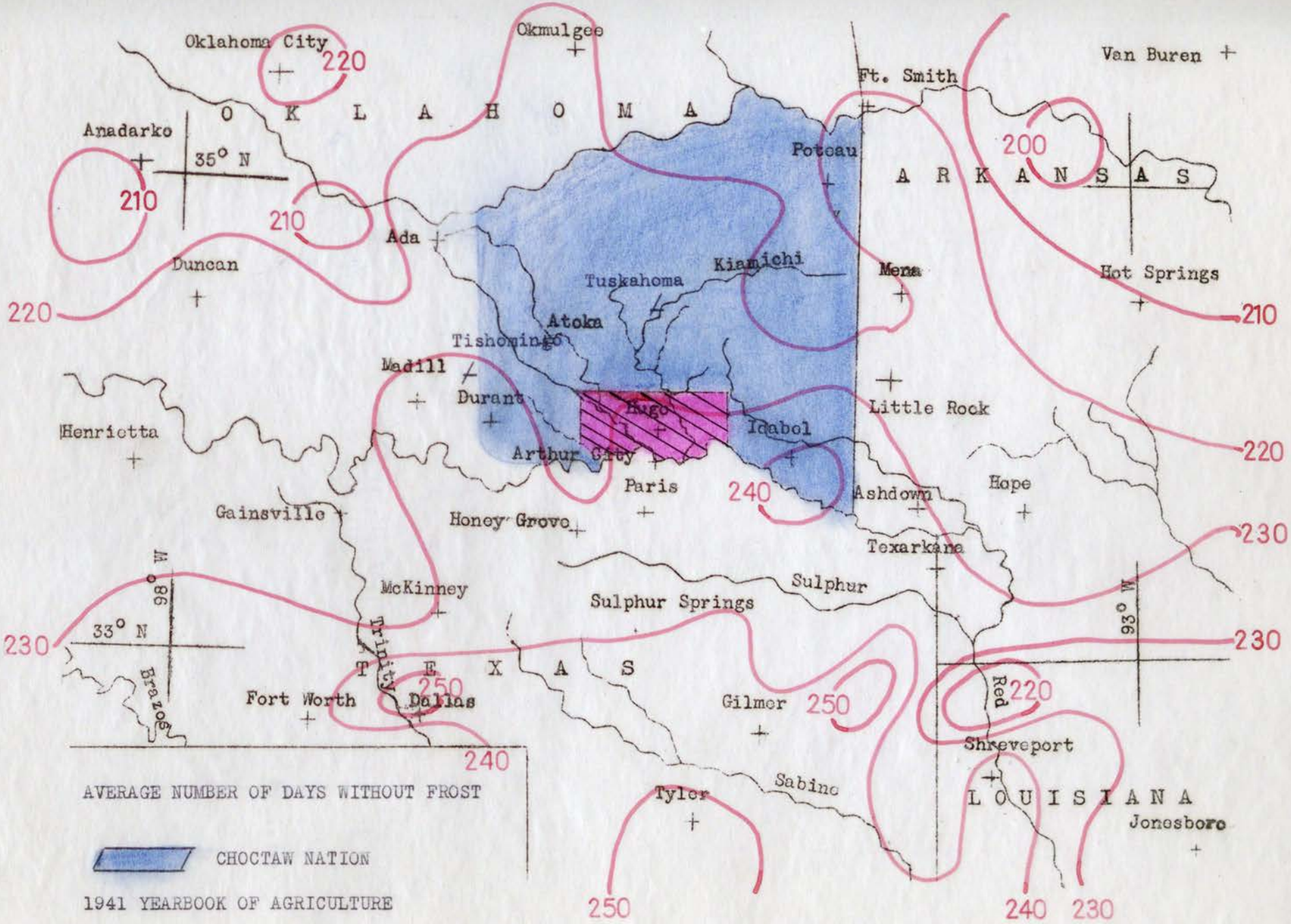
[5] United States Agriculture Department Weather Bureau, Climatological Data, 1930, Oklahoma Section, p. 107.

[6] Ibid., p. 108.

[7] Buckhannan, Anderson, and Brensing, Op. Cit., p. 7.

* An estimation.


Oklahoma City
Okmulgee
Van Buren
Ft. Smith
O K L A H O M A
Anadarko
35° N
Poteau
A R K A N S A S
Ada
Duncan
Kiamichi
Mena
Hot Springs
Tuskahoma
Atoka
Tishomingo
Madill
Durant
Hugo
Idabel
Little Rock
Henrietta
Arthur City
Paris
Ashdown
Hope
Gainsville
Honey Grove
Texarkana
McKinney
Sulphur
Sulphur Springs
33° N
T E X A S
Trinity
Brazos
Fort Worth
Dallas
Gilmer
Red
Shreveport
Sabine
Tyler
L O U I S I A N A
Jonesboro
200
210
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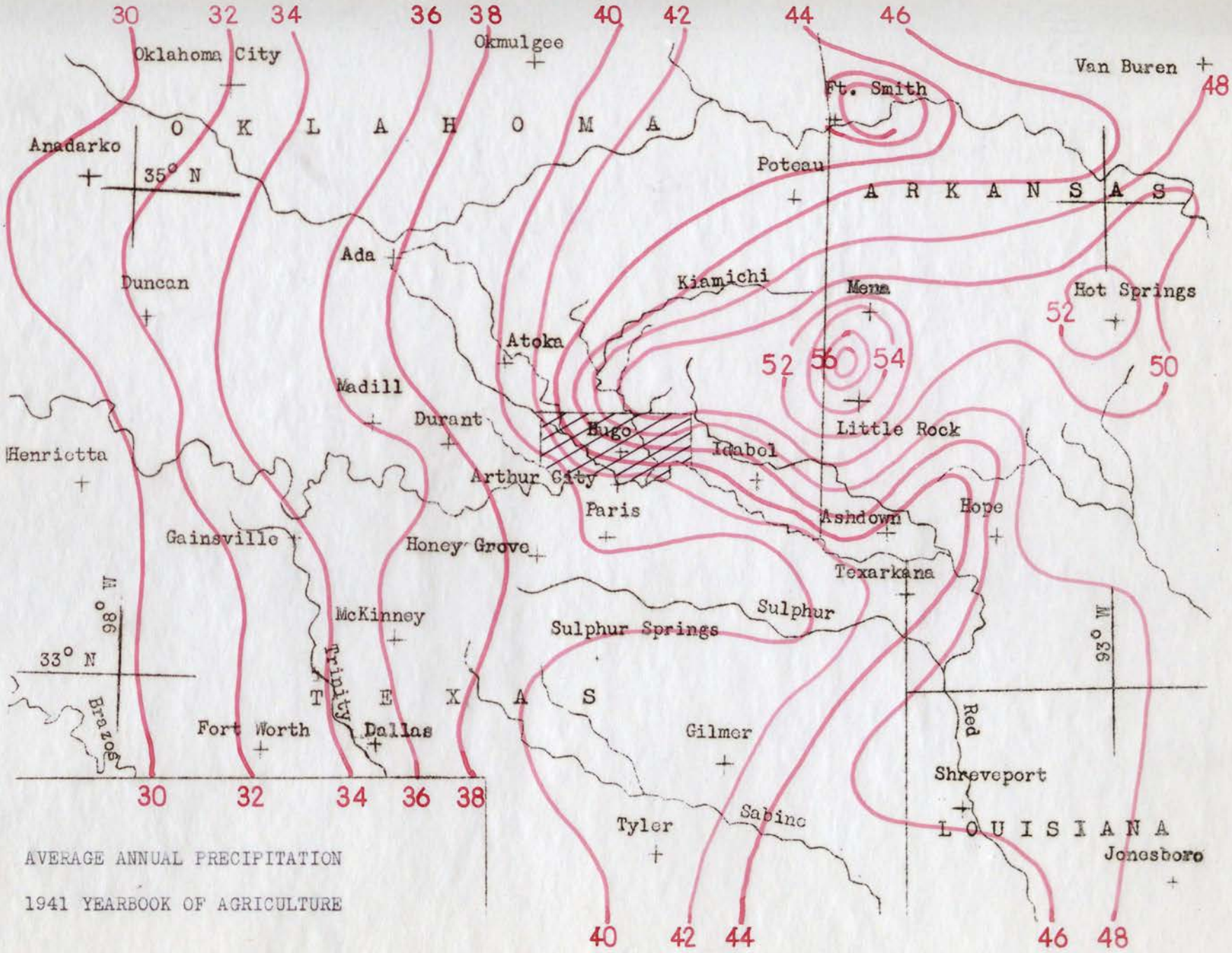
AVERAGE NUMBER OF DAYS WITHOUT FROST
CHOCTAW NATION
1941 YEARBOOK OF AGRICULTURE

ISOHYETS Figure 8



AVERAGE ANNUAL PRECIPITATION

1941 YEARBOOK OF AGRICULTURE

Hot dry winds persist in Choctaw County when deficient rainfall has created a summer drought, (Fig. 16, p. 62, September and October of 1939; and August and September of 1940; July and August of 1943; June, July and September of 1944; and July of 1946). The droughts, lasting from four to ten weeks, accompanied by dry, hot southwest winds burn the growing crops severely.

The average frost-free period extends from March 24th to November 6th, giving a growing season of 227 days. (Fig. 7, p. 33) Frosts have occurred, however, as late as April 17th and as early as October 9th.[8]

Usually the entire county is well watered. Rainfall is distributed throughout the growing season, with two marked seasonal high periods; one in April-May and another in October. (Figure 6, p. 31) The mean annual precipitation ranges from forty inches in the southwestern portion to fifty inches in the northeast, (Fig. 7, p. 33) with about 65 percent falling in the growing season. The Hugo Weather Station, established in 1913, gives an average rainfall of 42.55 inches over a 33-year period,[9] ranging from 28.46 inches in 1917 to 66.57 inches in 1926. (Table XI, p. 32). This variation, more than thirty-eight inches between the driest and wettest years, is the basis for a great deal of crop uncertainty, which will be discussed later.

Figure 16, p. 62, shows that high summer precipitation correlates with low temperatures. August of 1943 had no rain while the average temperature of the month was 87.20° F. The same month of 1942 received 9.88 inches of rainfall with an average temperature of 80.2° F. The actual thermometer readings are influenced by the amount of cloudiness but do not necessarily represent the sensitive temperature to the human body. The hot dry days are often more

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8 Martin and Kincer, Op. Cit., p. 17.

9 United States Agriculture Department Weather Bureau, Op. Cit., p. 110.

comfortable as a result of decreased relative humidity and perspiration.

Choctaw County has all types of rain, convective, cyclonic, and orographic. Winter rains are usually the slow steady orographic and warm frontal types, but many spring and summer rains are violent convective thunderstorms. The torrential downpours cause serious erosion to cultivated lands and roadbeds. Transportation becomes impossible for all but the pedestrian and equestrian. The almost daily showers and intermittent heavy rains soak the ground thoroughly. The creeks and rivers are filled to capacity, sometimes overflowing into the lowland agricultural areas and grazing lands.[10] In 1935, 10,000 acres of Boggy Creek bottom were inundated, causing a crop loss of $27,550. Cattle and horses valued at $15,100 were drowned.[11] Livestock are frequently lost when the "free range" bottom lands are flooded.

Severe hailstorms cause serious damage to crops in small areas, this occurrence being less frequent than once in ten years in any given locality.[12] A hailstorm damaged many cucumber fields near Boswell in the spring of 1948. A destructive tornado occasionally hits a local area (Antler's destruction in 1944) destroying crops and buildings in its path. Some damage results from electric storms and ice accumulation but these meteorological phenomena are not significant hazards.

Heavy dews are a characteristic of the climate of Choctaw County during late spring and early fall. Radiational cooling at night seldom fails to reduce the surface air temperature to its dew point. Field work requiring

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10 C. W. Honess, "Geology of the Southern Ouachita Mountains of Oklahoma," Oklahoma Geological Survey Bulletin 32, Pt. II, p. 17.

11 Oklahoma Planning and Resources Board, A Social and Economic Survey of Six Counties in Southeastern Oklahoma, p. 29.

12 Buckhannan, Anderson and Brensing, Op. Cit., p. 7.

dry weather is often delayed several hours in the morning until the excessive moisture has evaporated.

High relative humidity of Choctaw County through the fall, winter and spring months encourages rapid destruction of metals by rusting or oxidation. Plow tools, wire fencing, screen wire, and ungalvanized sheeting all rust at a rapid rate. Wood quickly decays also, and fence posts will rot out in a few years if untreated. Fences are usually built with bois'd'arc or creosoted posts. Houses must be painted more often in this area than in less humid sections of the state.

The sun shines 50 percent of the possible time in winter, 55 percent in spring, 70 percent in summer, and 68 percent in autumn, making an average of 61 percent for the year.[13]

In conclusion, the county has a diverse climate with pronounced diurnal and seasonal changes in temperature, rainfall, winds, and sunshine. Note the 112 degrees variation in temperature and the 38-inch variation in precipitation in Table XI, p. 32. This climatic fluctuation has led to an increased deterioration in the fertility of the cleared lands, (discussed in a later chapter). The climatic oscillations have also favored crop diversification. Many farmers now plant different crops to ward off a complete failure and a few plant the same crop periodically, hoping to hit a favorable growing season.

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[13] United States Agriculture Department Weather Bureau, Loc. Cit.

CHAPTER VI

NATURAL RESOURCES

1. Forestry

Choctaw County lies largely in what was once the greatest unbroken stretch of timber in the world (the eastern forest). With the exception of the central prairie (Fig. 1, p. 6), every part of the county was originally forested. Demands for cotton land, coupled with reckless burning and other destructive practices, reduced the standing timber long before lumbering began.[1] The county, however, still devotes 51 percent of its total acreage to timber.[2] Table XII, p. 48, gives 65 percent in farms, but this included the 121,000 acres of "woodland on farms." Several thousand acres of second growth of pine and mixed timber lie to the north of Fort Towson in the Ozark Foothills and westward along the northern border or the Ouachita Transition Zone. Many acres of timber still occupy the stream bottoms, particularly the overflow lands.

Here, like all other timbered areas, the lumber industry removed the better timber first.[3] The entire county has been intensively logged within recent years as lumber demands and block mills have drained the remaining merchantable timber severely. Only the few inaccessible areas contain the virgin trees. The attainable lands display only cut over and second growth material. More and more the lumberman has carried his portable sawmill to these out-of-the-way places and logging roads wend their way over many miles

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[1] C. Langdon White and Edwin J. Foscue, Regional Geography of Anglo-America, p. 262.

[2] Oklahoma State Planning and Resources Board, A Social and Economic Survey of Six Counties in Southeastern Oklahoma, p. 35.

[3] Ibid., p. 261

of rough terrain to reach the main road. Portable mills move in after early summer rains; cease and vacate before fall showers begin.

Despite the growing shortage of timber, many farmers turn to "tie hacking" a few weeks during the summer months after the final row-crop plowing is complete. Many blocks still appear on the markets, and one lumber dealer has bought over $10,000 worth of hardwood lumber during the last nine months from mills in the west end of the county alone.[4]

Hardwood trees including Red, Water, Post White, Pine and Burr Oak, Black Jack, Walnut, Persimmon, Cottonwood, Locust, Sycamore, Willow, Mulberry, Black Gum, Elm, Hickory, Ash, and many others grow in the South and Western part of the county and pine grows in the East and Northeast.[5] Bois'd'arc do well on the bottom loam and the posts are highly prized throughout this whole area of the country.[6] These post prices increased from seven cents in 1939 to thirty-five and forty-five cents each in 1947.[7]

The future of the lumbering industry is not too bright for the county. Forest fires make a yearly sweep each fall or winter. Many people "burn the woods off to get rid of ticks and make the grass rise earlier." Once a fire starts, many acres burn and the smoke-laden atmosphere lasts several days. Older trees are felled with no regard to the younger trees and destructive lumbering prevails here in the highest form. Tax land resells every fifth year and purchasers follow the traditional policy, "cut the best timber as

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[4] Conference, Mr. Walter Larracy, lumber dealer, Boswell, Oklahoma.

[5] George R. Phillips, Frank J. Gibbs, and Wilbur R. Mattoon, Forest Trees of Oklahoma, How to Know Them, pp. 19-116.

[6] Harry P. Rigdon, "Fence Post Production in Oklahoma," Oklahoma Extension Service Circular 450, p. 16.

[7] Conference, Mr. Sam Darnell, post dealer, general store proprietor, Sunkist, Oklahoma.

fast as possible and move to a new location." People buy the timbered tax-sale land with the intention of exploiting the timber for five years and letting it resell. Some sale land formerly sold as low as fifty cents to one dollar per acre.

The chief concern of the people should be forestry conservation. Severe erosion after the timber is cut and depleting soil fertility on the rough topography give sufficient evidence for a county, state, and federal reforestation program. More of the upland and rough lands could produce timber products.[8] Pecan trees do well throughout the county, but grow exceptionally well along the streams. They are indigenous to the area and, as the timber is cut off, bottomlands could be set in pecan sprouts. "Bermuda and other pasture grasses thrive well under well-spaced pecan trees and a pecan grove and pasture combination is more profitable than any crop now grown in Southeastern Oklahoma."[9]

The number of pecan trees in the county increased from 8,983 in 1940 to 21,723 in 1945 and the dollar sales increased from $5,615 to $31,442 over the same period.[10]

2. Non-Metallic Minerals

Sand deposits of the Trinity Formation crop out in all sections of the county. This sand tests fairly pure silica but no glass factories exist in the county. Several thousand acres of gravel lie to the north of Hugo and the county purchased a block of these gravel beds from which to obtain covering

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[8] I. F. Eldredge, "Forest Resources of Southeast Oklahoma," Forest Survey Release No. 37, p. 20.

[9] Conference, Mr. E. L. Whitehead, Oklahoma A. & M. College Extension Horticulturist and former Bryan County Agent.

[10] United States Census of Agriculture, 1940, p. 376.

for all the nearby roads.[11]

A few shallow wells have been dug for oil, but with no avail. C. W. Honess reported, "It is useless to drill into the Paleozoic anywhere in the eastern half of Choctaw County."[12]

> No anticlines are known in the Cretaceous areas of Choctaw County. The structure is unfavorable to oil and gas accumulation so far as is known. The rock dips uniformly south or slightly east of south throughout this region--a type of structure which should permit the escape of any oil or gas which might otherwise accumulate here. Apparently then, there is not a single attractive locality to be found in this region. Indeed, there is no place anywhere in the five counties of Southeast Oklahoma (Atoka, Bryan, Pushmataha, McCurtain, and Choctaw) that could be recommended with any assurance that oil may be found in commercial quantity.[13]

3. Soils

Choctaw County lies several miles to the east of the hundredth meridian and, therefore, has "Pedalfer" soil. The term "pedalfer," coined by Marbut, gets its meaning as follows: Ped--Greek for ground; Al--Latin for aluminum; and Fer--Latin for iron.[14] Humid conditions must prevail while Pedalferous soils form. The moisture leaches the calcium and leaves the iron and aluminum.[15] In addition to the absence of carbonate in this soil, the subsoil develops a heavier texture than the surface soil. They are also more or less acid in reaction.[16]

Choctaw County also contains two subdivisions of Pedalfers. Namely,

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[11] Conference, Mr. Walter J. Larracy, Former Choctaw County Commissioner.

[12] C. W. Honess, "Oil and Gas in Oklahoma, Atoka, Pushmataha, McCurtain, Bryan, and Choctaw Counties," Oklahoma Geological Survey Bulletin 40, p. 32.

[13] Ibid., p. 33.

[14] Webster's New International Dictionary, 2nd ed., pp. 1802, 57, 933.

[15] Ellsworth Huntington, Principles of Human Geography, p. 289.

[16] George J. Miller and Almon E. Parkins, Geography of North America, p. 53.

the Red and Yellow Podzols, with a laminated profile (light colored surface layer and heavy textured subsoil) and Soils of the Southern Prairies, with a continuous profile (surface and subsoil of same texture).[17]

These Red and Yellow soils have been badly leached of their lime, potash, soda, phosphoric acid, and a big percent of their organic matter (Fig. 9, p. 43, and Fig. 10, p. 44). They, therefore produce less abundantly than the prairie soils, but their sandy texture enables spring sunshine to warm them more rapidly. These soils cultivate easily, rapidly absorb the moisture, and retain it longer than other soils.

4. Problems

Correlate the maps, pages 43 and 44, and note the percentage increase in depletion of fertility as the rainfall increases in Oklahoma. These maps indicate the percent of original fertility gone and, since the beginning quantity of fertility was meager, the condition appears deplorable for Choctaw County. Note the 38 percent of nitrogen, 43 percent of organic matter, 57 percent of phosphorus, and 53 percent of lime gone from the soil. This represents an average of many tests. Some soil defects excel the average figure and others are lower but the whole situation is lamentable.

The numerous abandoned homes, schools, churches, country stores, cotton gins, and saw-mill sites picture a sad condition of the one-time productive earth. (Note the diminishing returns from agricultural and livestock sales in Table XVI, p. 71).

Both wind and water erosion harass the ground. More than ten million

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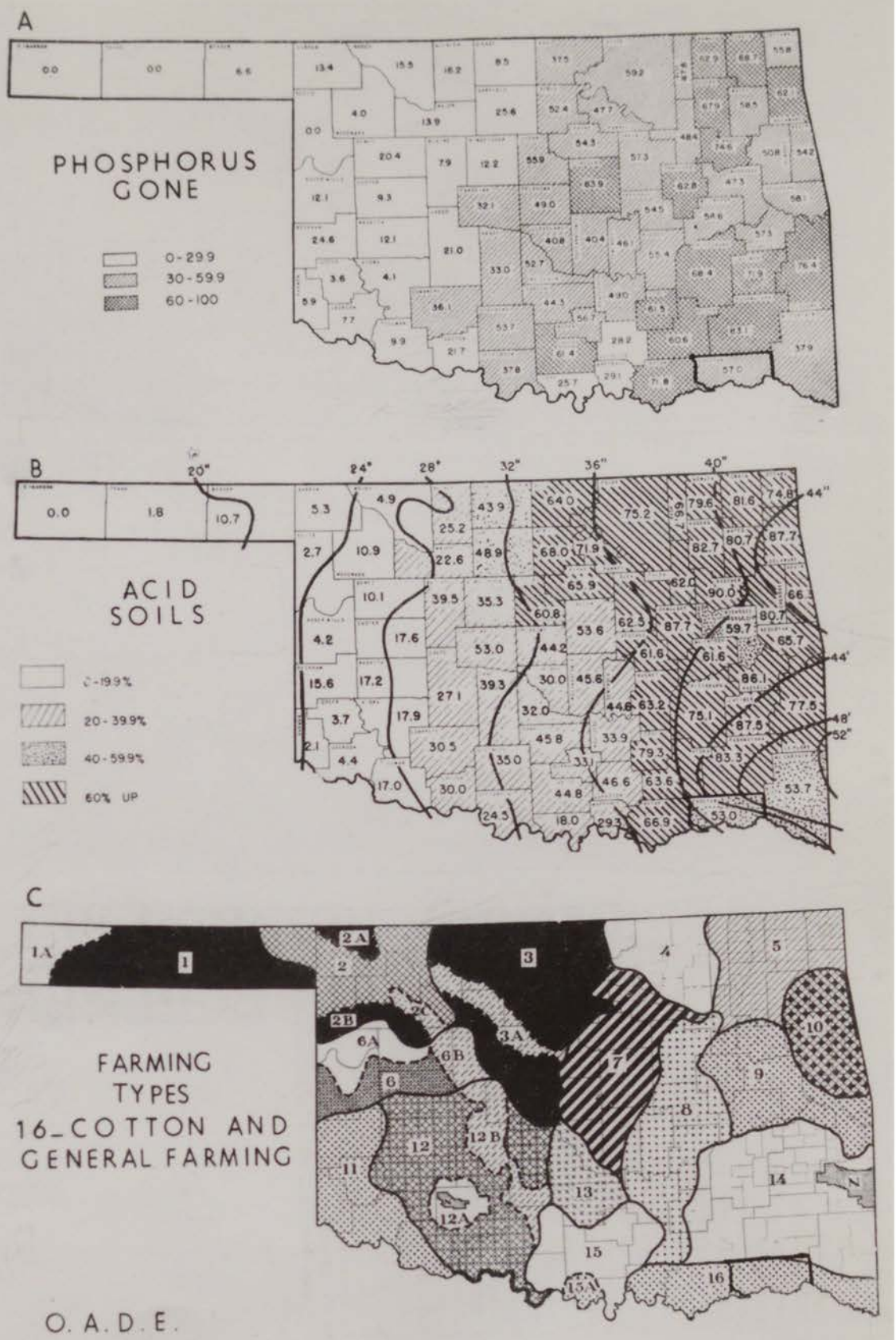
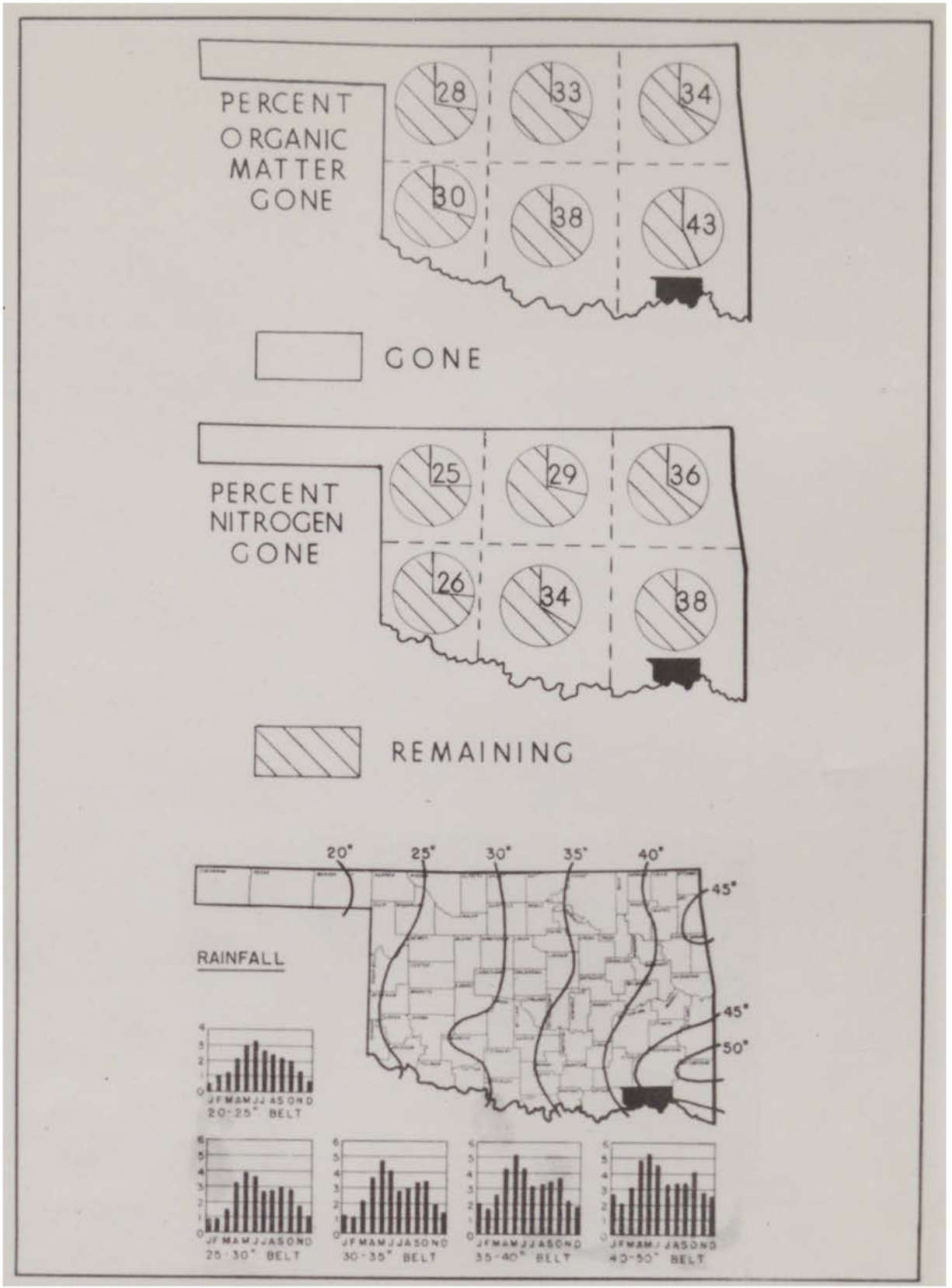
[17] Ibid., pp. 57-58.

Figure 9



A--Percent of samples tested that need phosphate fertilizer.
B--Percent of samples which indicate a deficit of lime. Note the variations from west to east along the isohyets.
C--Types of farming in Oklahoma.
(A & B from Exp. Sta. Bul. No. B-299; C from Dept. of Agri. Econ.)

Figure 10



A--Percentage of Organic Matter Gone. Note the increase of percent gone as the rainfall increases.
B--Percentage of Nitrogen Gone.
C--Rainfall of Oklahoma.
(From Exp. Sta. Bul. No. B-299)

acres of cropland in Oklahoma are subject to severe erosion with greater losses in the Southeastern sloping areas.[18]

5. Improvement Measures

The following report was given by Mr. Jeep Bennett, Choctaw County Administration Officer, Agricultural Conservation Office, Hugo, Oklahoma:

> Soil conservation began in the county in 1933 with the plowing under of green cotton and other crops. This appeared to be a waste to most people but was the beginning of green manuring of the land.
>
> By the time World War II came along, a few farmers had a balanced fertilizer of Winter Peas, Yellow Hop, phosphate, and lime. This released the nitrogen for the war effort or did not let soils go begging for fertilizers during the war years.
>
> In 1947 the federal government spent $69,635 in the county for soil conservation practices which included fertilizers, terracing, and dam building. The government shoulders fifty-one percent of the financial burden and the farmer the remainder. Twenty-one percent of the total expenditures purchased lime and phosphate. Two hundred and eighty-five tank dams were completed during the year with an average cost of forty dollars each to the farmer.
>
> An engineer surveys the tank site and a contracted digger moves the dirt with a "dozer." Then the surveyor approves the work, measures the yardage and the government pays ten cents per yard on the cost, and the farmer the rest. The federal assistance amounted to twelve cents per yard in 1947 and prior to the war the whole project was financed by the government.
>
> The government gave subsidy for 1084 acres of limed soil and 118 acres of soils treated with phosphate in 1947. The program calls for two tons of lime and 200 pounds of phosphate per acre. The lime is supplied from the Fort Towson plant and is delivered and scattered on the land for $3.60 per acre.
>
> The farmers signed for 8,000 acres of terraces for 1948 at a cost of $2.50 per 100 feet with the farmer paying seventy-five cents and the government paying the rest.
>
> Exactly 12,370 acres were sown to Korean Lespedeza in 1947 and 360 acres to sweet clover. Several acres were sown to Bermuda grass; but seeded Bermuda is not a success because the seedling root system is not

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18 Wesley Chaffin, "Lime for Oklahoma Soils," United States Department of Agriculture Circular No. 408, p. 4.

strong enough to withstand the freezes and droughts through the first year.[19]

Mr. Bennett spoke of the slow manner in which the farmers improved methods of farming. He said that farmers in Louisiana paid six dollars per ton for lime from Fort Towson while the native farmer is reluctant to pay less than one-third of this amount. He believes that after the land is leached a little longer and the incipient stage of conservation is over in the county the farmer will cooperate more freely.

"It is interesting to note," said Mr. Bennett, "that the government and not the farmer is always the instigator of farm conservation programs. The government realizes that once the farmer sees the results of improved farming, he will evsntually shoulder the total financial burden." To exemplify, he said that more farmers are terracing and sharing the expense now than when the government bore the total expense. "After conservation is well under way, Uncle Sam can tighten his purse strings and conservation will continue."

The following is a summary of the contents in the Choctaw County Agricultural Conservation Association Handbook for 1948.

1. CONSTRUCTION OF TERRACES FOR WHICH PROPER OUTLETS ARE PROVIDED:

   (a) Small ridge-type terrace or small channel-type terrace--$1.25 per one hundred linear feet.
   (b) Diversion terraces--$1.75 per one hundred linear feet.

2. CONSTRUCTION OF A DAM OR RESERVOIR: Eight cents per cubic yard for the material moved in construction. Cost to farmer, eight cents per cubic yard for amount approved.

   To be eligible for payment, dams or reservoirs must: (1) be located on non-cropland, (2) provide adequate well-distributed watering places for livestock on pasture land, (3) distribute

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[19] Conference, Mr. Jeep Bennett, County Administration Officer, Agricultural Conservation Office, Hugo, Oklahoma.

grazing and prevent over-grazing and resulting erosion near watering places, and (4) contribute to control of erosion by being a factor in flood control. The slopes and top of the dam must be sodded by the farmer within 60 days after the dam is constructed.

3. APPLICATION FOR AGRICULTURAL LIMESTONE: $1.80 per ton.

4. APPLICATION FOR SUPERPHOSPHATE: 20 percent--$0.75 per one hundred pounds. Eligible for legumes only.

5. ESTABLISHING PERMANENT PASTURES BY SEEDING OR OVERSEEDING ADAPTED PASTURE GRASSES OR PASTURE LEGUMES: 50 percent of the average cost of the seed.

6. ESTABLISHING PERMANENT PASTURE BY SODDING: $3.00 per acre. There must be at least one sod piece for each sixteen square feet of ground.

7. ESTABLISHING A SATISFACTORY COVER FOR WINTER LEGUMES SEEDED IN THE FALL: 50 percent of the average cost.

8. MOVING WEEDS ON ESTABLISHED PERMANENT PASTURE: 40 cents per acre. Do not report any acreage from which the growth mowed has been used for feed, for threshing, for seed, or sold for any purpose. Mowing must be done before the weed seeds mature.

9. RENOVATION OF NON-CROP PASTURE OR RANGE LAND BY CONTROL OF NOXIOUS UNDERBRUSH SHRUBS AND BUSHES: Payments will be made only when ammate or other approved chemicals are used in killing the trees. Maximum rates of payment per acre:

   (a) Heavy infestation--over 35 percent of area--$4.00.
   (b) Medium infestation--20 percent to 30 percent of area--$3.00.
   (c) Light Infestation--Less than 20 percent--$2.00.

The maximum amount of assistance to any one individual cannot exceed $500 regardless of the number of farms in which he has an interest.

The maximum amount of assistance an individual can earn in Choctaw County on any one farm is $186.

CHAPTER VII

AGRICULTURE

1. Farming

The business of Choctaw County is farming, for which the natural environment reacts favorably. The farms and pastures comprise plots based on the sub-division of sections, half-sections, and quarter-sections, and forty-acre plots. Almost all of the farms are family-operated.

Miller and Parkins locate the county in the cotton belt,[1] while the Department of Agricultural Economics classifies the area as "cotton, general farming."[2] (Map C, p. 43) You will note in Table XIV, p. 58, that the latter is more nearly true, as the farmer reduced the cotton acreage from 66,000 acres in 1919 to 7,000 in 1945.

Table XII

Land Area, Lands in Farms, Number of Farms, Size of Farms, and Percent of Tenancy for Choctaw County[3]

Year	Total Acres of Land	% Area in Farms	Total Areas in Farms	Number of Farms	Average Size of Farms	Size of Model Farm	% Farm Tenancy
1910	505,600	32.5	164,170	2,040	80.5	20-49	66.4
1920	505,600	54.7	276,558	3,761	73.1	20-49	57.6
1925	505,600	49.9	252,087	3,312	76.1	20-49	68.9
1930	505,600	52.8	266,713	3,159	84.4	20-49	73.1
1935	505,600	60.1	303,991	3,472	87.6	30-49	72.0
1940	501,760	62.9	315,371	3,042	130.7	30-49	63.8
1945	501,760	65.4	328,325	2,425	135.4	30-49	

Table XII portrays a trend toward fewer numbers and larger size farms.

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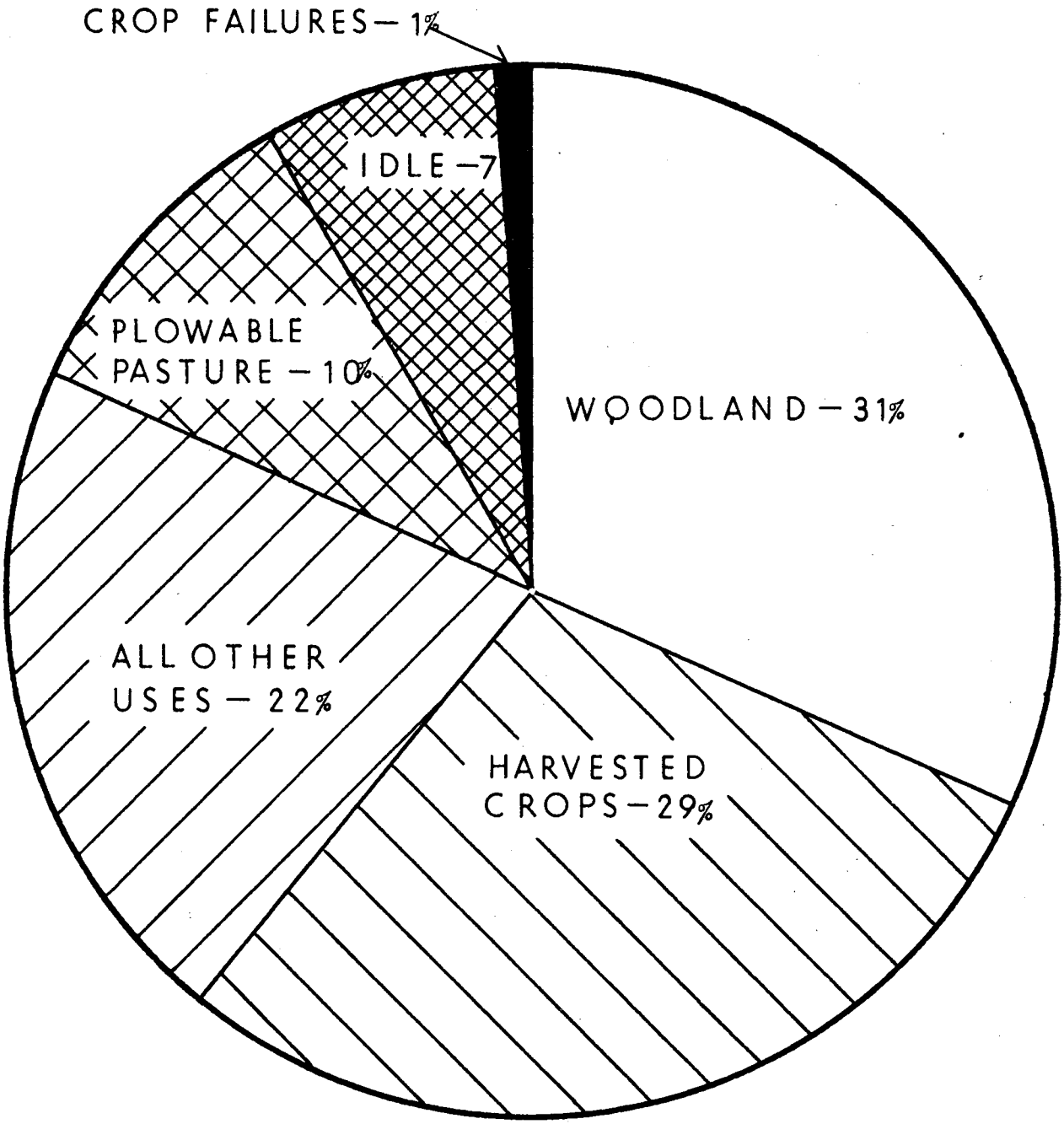
[1] George J. Miller and Almon E. Parkins, Geography of North America, p. 65.

[2] "Looking Forward in Oklahoma Agriculture," Oklahoma Experiment Station Bulletin No. B-299, p. 20.

[3] Sixteenth Census of the United States, 1940.

Figure 11

CHOCTAW COUNTY



LAND USE 1939 U.S. CENSUS

The average size of farms has increased from eighty to 135 acres from 1910 to 1945, as the number of farms decreased from 3,800 to 2,400. The area in farms, however, increased from thirty-two percent to sixty-five percent and the total acres in farms has increased from 164,000 acres to 328,000 acres for the same period.

Table XIII

Size of Farms in 1940[4]

Acres	% in State	% in County
Under 10	4.8	2.8
10- 29	7.7	13.1
30- 49	9.8	19.4
50- 69	5.9	9.7
70- 99	14.9	18.6
100-139	19.6	10.2
140-179	21.1	13.4
180-219	4.4	4.1
220-259	4.5	2.2
260-379	8.7	4.1
380-499	4.0	1.1
500-699	2.5	.8
700-999	1.5	.3
1000 and up	1.6	.2

Despite the fact that the farms have grown, the county still has a smaller percent of large farms and a greater percent of small farms than the state as a whole. (Table XIII) Twenty percent of Choctaw County's farms consist of 30-49 acre plots as compared to ten percent for the state. Compare this with the two-tenths percent of thousand acre farms for the county and 1.6 percent for the state. Rough terrain of eastern Oklahoma and the level plains of western Oklahoma account for this phenomena.

2. Ownership and Tenancy.

Only 32 percent of the rural farm dwellers possessed farms in 1940. (Table XII, p. 48) Farm tenancy remained high since statehood. Table XII gives the percentage range from 58 percent in 1920 to 73 percent in 1930. The percentage fluctuates with the prosperity of the county. Good times enable a few more farmers to purchase land, but depressions always result in a loss of mortgaged property for the small operator.

In normal times, many farmers make just enough to keep out of debt and

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[4] Ibid.

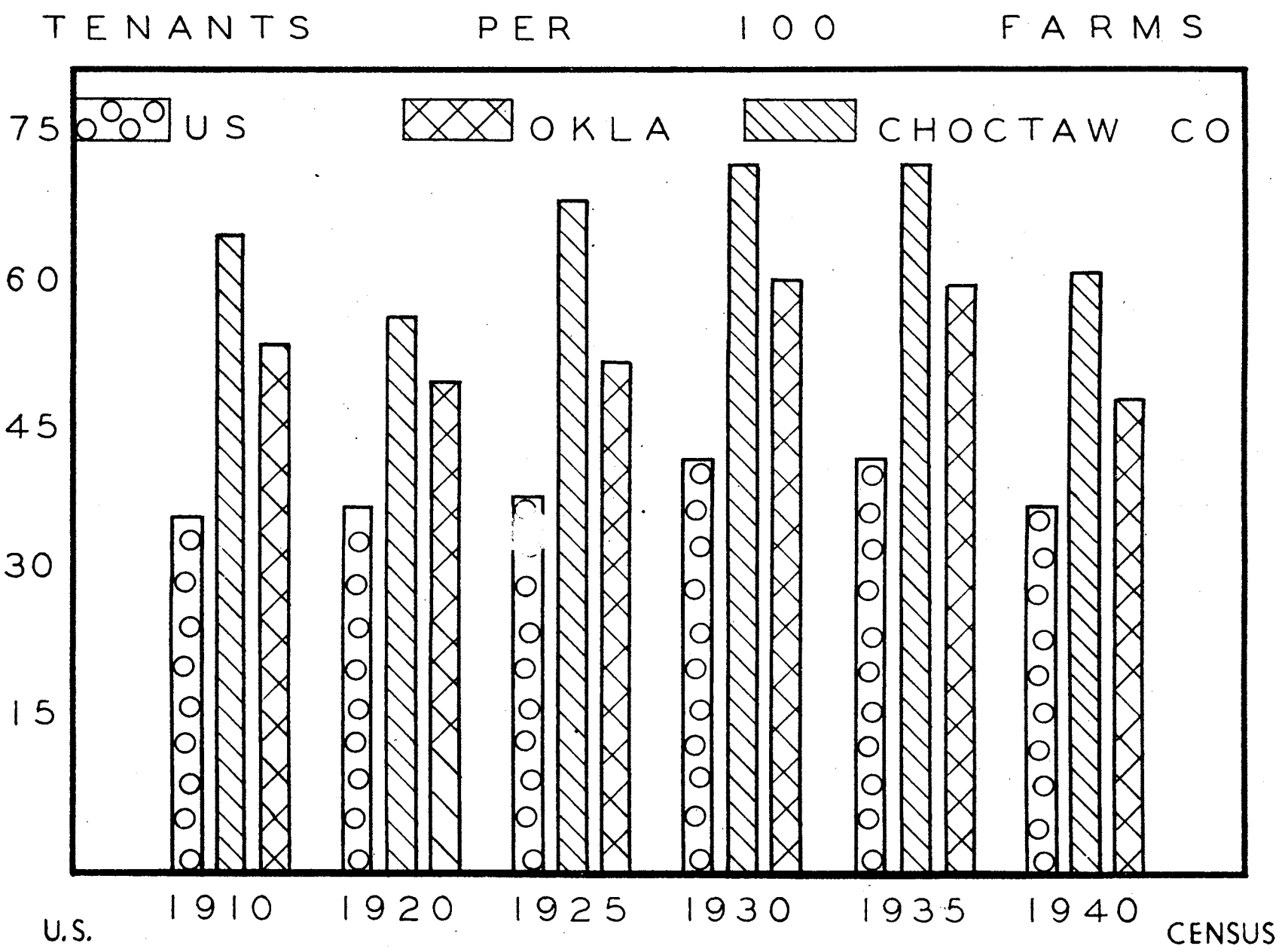

TENANTS PER 100 FARMS
US
OKLA
CHOCTAW CO
75
60
45
30
15
1910
1920
1925
1930
1935
1940
U.S.
CENSUS

Figure 12

start the year with a clean slate. Should sickness or other unforeseen hazards upset their budget, they must mortgage the crop; thus, an "owner" becomes a "tenant" after a number of such experiences. Tenant-owner relationships often lead to conditions unfavorable to all parties concerned as well as the land and improvements, particularly if either the tenant or owner has an indifferent attitude.

There are two sides to the question. The farmer should not be criticized too severely if he hesitates to put forth extra effort and build terraces, fences and sheds, legume the land, prepare for future pasturage and improve in general when he knows he may be forced to move at the end of the year. Often a farmer will have a three, four, or five-year contract subject to move any time the place sells. This proves unsatisfactory because a prosperous tenant may improve a rundown farm enough in a very few years to make it salable. Many farmers, therefore, appear to delay improvements.

Farmers from other parts of the country, not knowing the county, buy land because a five, ten or even twenty-dollar-per-acre farm appears as a "good investment" that should return a handsome profit on his invested savings. He should not be condemned, therefore, if he loses a year's wages (as many inexperienced farmers do) and does not care to make further investments in his farm. He wants the soil to pay for upkeep and reap him a percentage. Farm Security Administration and Veteran Loans ease the problem somewhat, but tenancy still remains a stumbling block to the prosperity of Choctaw County. Both the landlord and lessee must keep the future constantly in mind if the rental policy continues to dominate.

The price of land increases along with other prices, thus few tenants receive sufficient profits to buy farms and many times they must compete with non-farmers for the land if they are financially able to purchase a home.

Figure 13

COTTON — ONE TENTH THE AMOUNT SHOWN BY MAP

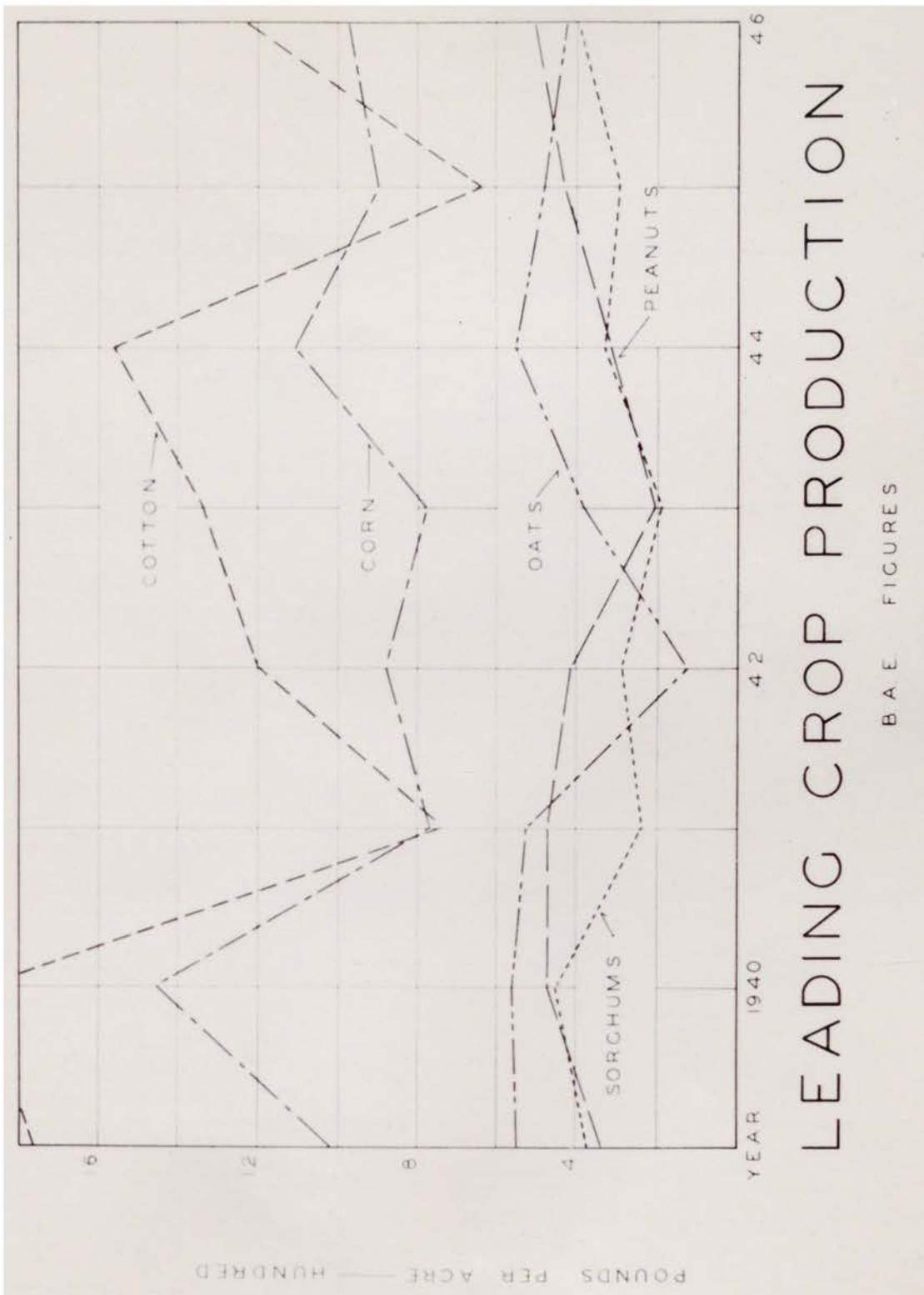


Figure 14

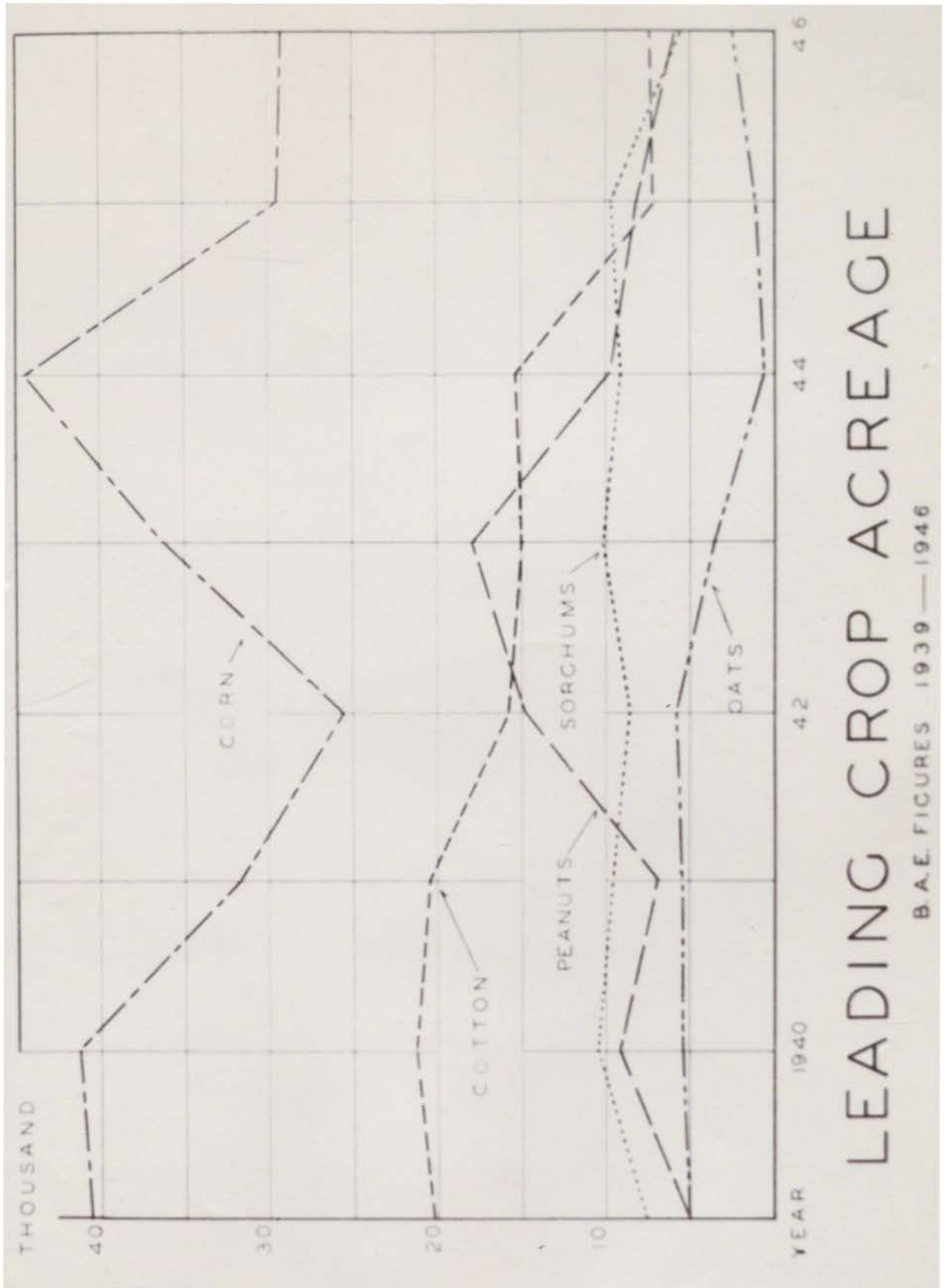
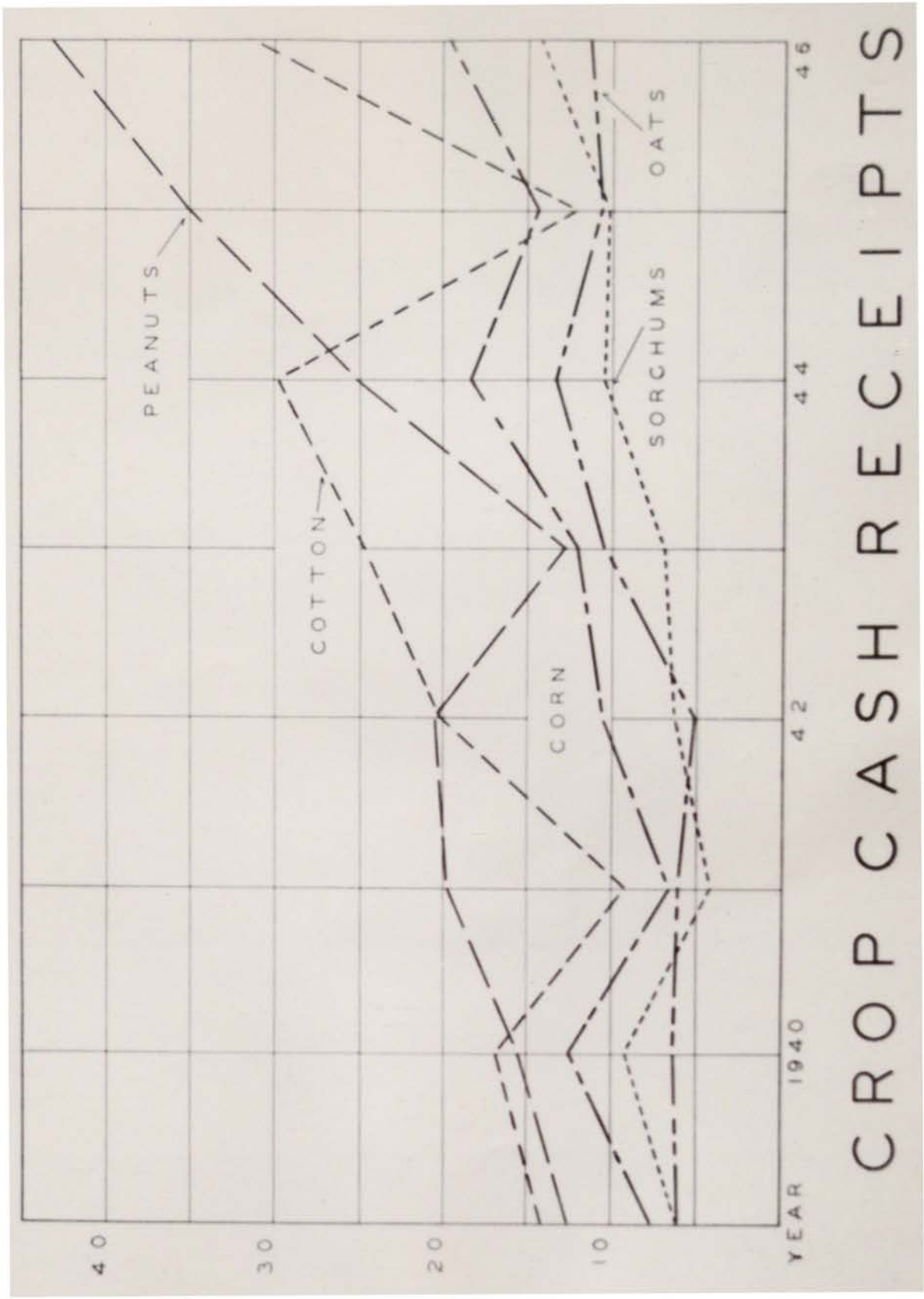

LEADING CROP ACREAGE
B.A.E. FIGURES 1939—1946
THOUSAND
40
30
20
10
YEAR
1940
42
44
46
CORN
COTTON
PEANUTS
SORGHUMS
OATS

Figure 15


CROP CASH RECEIPTS
PEANUTS
COTTON
CORN
SORCHUMS
OATS
40
30
20
10
YEAR
1940
42
44
46

Klemme, Parcher, and Ford reveal this fact in their report as follows: "Farm real estate markets in Choctaw County seemed to be heading toward a 'boom' condition during 1945."[5] Farm land prices increased 30 percent in the county during 1945. The 1945 average prices exceeded the 1941 level 40 percent and the volume of land sold in 1945 was 25 percent greater than the volume sold during 1944. Non-farmer's land sales showed a heavy decline, but continued to be the greatest in total volume. In 1945 land sales for cash declined; however, 70 percent of the acres sold for cash sales.[6]

Despite the prosperity of the farmer, many acres of Choctaw lands are still bought by land dealers who plan to resell on terms and at a profit. A few buy tax-sale land and resell the surface rights and hold the royalty (Royalty is not taxable and the surface owner pays the total tax, thus the mineral owner has nothing to lose and all to gain). A few absentee business men have bought Choctaw County farms and plan to continue working until the "depression" hits, then move to their land.

3. Crops

(a) Corn

Mixed farming characterizes most of the county, with major emphasis on corn. (Table XIV and Fig. 13) Corn is given preference on good land since it will produce very little on depleted soil.[7] The yield varies from fifty to sixty bushels per acre on alluvial soils to none on some upland soils. State average is seventeen bushels per acre. The average yield, however,

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[5] Randall T. Klemme, L. A. Parcher, and Erwin C. Ford, "Farm Real Estate Activity in Oklahoma," Experiment Station Bulletin B-301, p. 7.

[6] Ibid., p. 7.

[7] C. Langdon White and Edwin J. Foscue, Regional Geography of Anglo-America, p. 152.

declined from 19 bushels in 1919 to 14 in 1939.[8] Fig. 13, p. 53, shows the yield oscillates from 14 to 20 bushels for the eight-year period due to inclement weather conditions. The crop is ever-shifting to more fertile soil, and new varieties and fertilizers are being introduced. The yield has a chance to remain at its present level.[9]

Corn average has not fluctuated as has that of other crops. The total, 39,000 acres in 1909, increased to 59,000 acres in 1919 but decreased to 30,000 acres in 1945. The people seem to have formed a "corn growing habit." Many crops will produce more feed per acre than corn but the crop helps to equalize the seasonal distribution of labor.[10] February-March corn is usually "laid-by" when other crops are ready to plant and needs no more work until harvest time and this can be prolonged indefinitely. The climate permits June corn to mature in Choctaw County before frost and roasting ears will mature if planted as late as July 4.

A greater percent of Choctaw County corn is consumed locally; however, a few farmers truck to nearby markets (Paris, Texas, and Durant, Oklahoma--Note Fig. 7, p. 33) during a "bumper crop" season.

The majority of Choctaw farmers "gather" corn with a team (either mules or horses) and a wagon. A trained team will continue to pull the wagon along the same row, stopping and starting at a word from the farmer. A young team requires a driver.

Choctaw County and its neighbor, Bryan County, are one of the leading

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[8] United States Census of Agriculture, 1940.

[9] James S. Brooks and Roy A. Chessmore, "Performance Tests of Corn Varieties and Hybrids," Experiment Station Bulletin B-317, pp. 8-10.

[10] Conference, E. L. Whitehead, Oklahoma A. & M. College Extension Horticulturist and former Bryan County Agent.

popcorn producing areas of the United States. The crop is ready for consumption at harvest time, thus eliminating the drying process.[11]

The popcorn acreage has increased tremendously the last few years. Company representatives contact the farmers in the spring and draw up a contract which guarantees a stated price (ranging from three to four cents per pound) for output from a stated number of acres.[12] The farmer must use company approved seeds. Formerly the company rented shelter and stored the popcorn until the local area completed its harvest. Then, by means of a portable thresher, the company shelled all of the crop at one time. Shelled corn reduces shipping space, but the acreage has increased so much that

Table XIV

Acreage of Principal Crops in Choctaw County, Oklahoma, in Stated Years as Reported by the Federal Census

Crop	1909	1919	1929	1939	1945*
Corn	38,572	59,285	48,957	40,430	30,000
Oats for grain	1,194	8,237	1,888	3,275	2,000
Oats cut and fed			1,852	1,092	
Wheat	48	627	40	14	
Sorghums for grain	8	7	150	958	
Dry Peas (mainly cowpeas)	135	125	672	5,839	
Peanuts	112	996	2,683	4,278	8,000
Cotton	17,457	66,715	53,466	18,652	7,000
Sorghums for hay and fodder		2,530	1,418	5,674	10,000
Alfalfa	55	392	175	880	
Wild Grass	4,952	6,119	1,592	2,720	
Legumes for hay		476	578	1,901	
Grains cut for hay	7	2,562	201	294	
All other hay	83	804	1,123	4,597	6,000
Sorghum cane	397	669	153	181	

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[11] Oklahoma State Planning and Resources Board, A Social and Economic Survey of Six Counties in Southeastern Oklahoma, p. 59.

[12] Conference, Mr. Allen Morrison, Farmer, Route 3, Boswell, Oklahoma.

* B. A. E. Figures.

storage facilities are inadequate, and most of the corn is now trucked out, as it is gathered, to stationary shellers at Durant, Paris, and Hugo.[13]

The dollar returns (varying from $25 per acre on average land to almost $1000 on good land) make it possible for the farmer to buy fertilizer, and now many farmers fertilize the poorer soil and find it very profitable.

(b) Sorghums.

All sorghums, except those for syrup, hold second place in acreage. This includes all the headed feeds (hegari, kafir corn, milo, maize, dorso, and many other varieties that are grown in the county). If we add sorghums for syrup, the aggregate acreage increases somewhat. The heads lack the nutrient food value of corn, but they provide a balanced ration for the livestock. The sugary stalk is an excellent forage in bundles, in a stalkfield, or ground for feed. Sorghum is planted on second-choice land as it will yield on lands too poor for corn. The crop is a soil robber, however, and should be planted in a crop rotation system. The sorghum conflicts with the seasonal distribution of labor. It must be bundled or headed at the right time if the farmer expects two cuttings and birds usually destroy many heads before the farmer stores it. Table XIV indicates that only a small percent of the sorghum acreage is harvested for grain (958 acres out of 5,674 acres in 1939).[14]

(c) Oats.

Oats fit well into the seasonal distribution of labor, being seeded in early spring before corn planting begins and cut in the summer when corn cultivation is about over.

Oats provide an excellent feed for livestock both as pasture and as a

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[13] Conference, Mr. Darwin Keck, Veteran Agriculture Teacher, Boswell, Okla.

[14] Statistical Abstract of the United States, 1947, p. 125.

grain. Many acres are planted for pasturage but the acreage continually decreased (from 8,000 in 1919 to 1,000 in 1945) as a result of unpredictable spring weather. For the same reason, Choctaw County has no wheat (20 acres in 1945). Early rainy and cloudy weather fosters smut, blight, rust, and other damp weather fungi.[15]

(d) Cotton.

Cotton became the chief cash crop after Choctaw County farmers began growing the plant and held first place until World War II demanded peanut oil. The acreage increased to 67,000 in 1919 but Table XIV depicts a decline to 7,000 acres in 1945. "King Cotton" occupied 46 percent of the acres harvested for crops in 1929 and only nine percent in 1945. This decrease was caused by: reduced productivity of the land; the United States' losing world monopoly on cotton; government program to curtail cotton production; and, most of all, the boll weevil.[16]

The boll weevil appeared in the United States in 1892 and had reached every part of the cotton belt by 1921.[17] Mr. Trout describes the declining importance of Choctaw County cotton as follows:

> I came to the territory in the spring of 1889 and helped gin 900 bales at Mayhew that fall. We moved the gin to Boswell in 1902 to be on the railroad (completed to Ardmore in 1903). We ginned around 3,000 bales in 1903, but people moved in and put the virgin land in so fast that one gin could not handle all of the cotton and two more gins were built by 1920.
>
> We averaged from three to five thousand bales each season and in 1925 we ginned almost 8,000 bales. I cleared $25,000 that year but from

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15 Conference, Mr. Whitehead, Op. Cit.

16 Henry Dunlavy and Wesley Chaffin, "Cotton in Oklahoma," Extension Service Circular 434, p. 26.

17 C. L. Metcalf and W. P. Flint, Destructive and Useful Insects, p. 448.

then on things gradually went down; of course, we weren't hurt too badly until after the weevils got so bad and Roosevelt started having the cotton plowed under. For a while one gin would operate each fall and pay the other a dollar apiece out of each bale ginned to stay shut down. One of the gins moved "out West" in 1933 and the other one was sold in 1939. They moved the last one out in 1946 after ginning only one hundred bales in 1945.

I have seen all of these old fields grow a bale and a half-bale to the acre but people have let them wash away until they will hardly grow peas. In those days all the farmers grew was corn and cotton and many did not even have a milch cow, meat hog, or garden, but depended entirely on "cash cotton."[18]

Mr. Trout said the farmers ferried their cotton across Red River to Honey Grove and Paris, Texas, prior to 1898.

The amount of growing season precipitation determines cotton yield as well as other agricultural crops.[19] Wet seasons encourage luxuriant growth and heavy foliage that is conducive to weevil activity, as the weevil is not adaptable to hot dry weather. Correlate figures, pages 54 and 62, and note the effect that rainy weather during August and September has on cotton production. The highest cotton yielding year (1940, with 190 pounds per acre) received only .80 of an inch of precipitation in August and 1.5 inches for September. The lowest yielding year (1945, with 65 pounds per acre) received 2.73 inches in August and 5.56 inches in September. Ample rain in June and early July and only a small amount during the remainder of the season is favorable for a high average yield.[20]

(e) Legumes.

(1) Peanuts.

Note in Table XIV, p. 48, the rapid increase in peanut acreage as that

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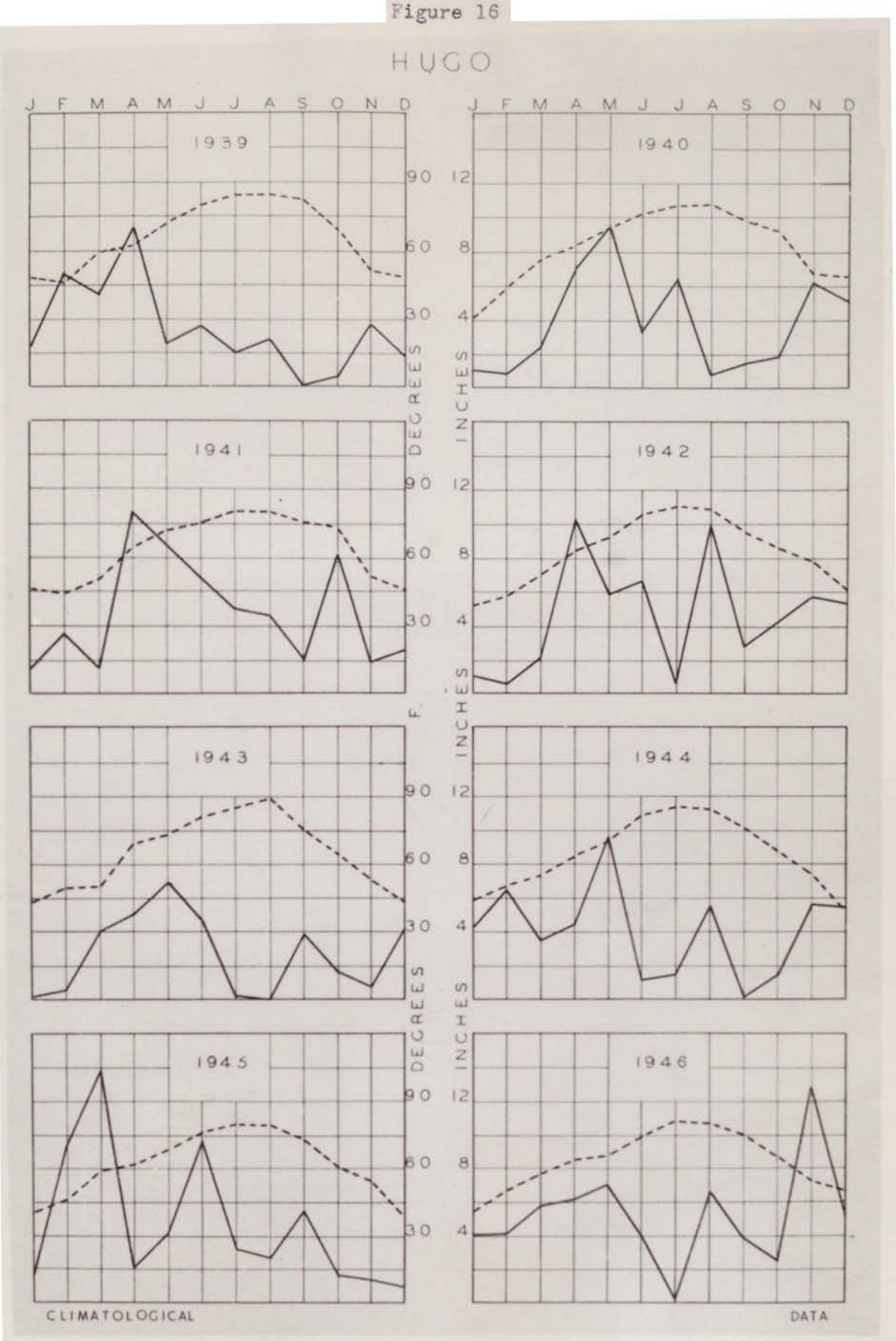
[18] Conference, Mr. Bill Trout, retired gin owner and operator, Boswell, Oklahoma.

[19] Ellsworth Huntington, Principles of Human Geography, pp. 288-294.

[20] Dunlavy and Chaffin, Op. Cit., p. 12.

Figure 16


HUGO
J F M A M J J A S O N D
1939
1940
1941
1942
1943
1944
1945
1946
90
60
30
12
8
4
DEGREES F.
INCHES
CLIMATOLOGICAL DATA

of cotton decreased. The increase was from 112 acres in 1909 to 8,000 acres in 1945. World War II created a great demand for peanuts; consequently, Choctaw county farmers planted 17,800 acres in 1943, but labor shortage caused them to reduce their acreage continually since that year.[21]

Peanuts are legumes, and in that respect should be soil builders. The harvesting method, however, removes the noduled roots with the nuts, and, consequently, no nitrogen is left with the soil. A number of farmers "hog" the peanuts and others mow or graze (with horses and cattle) the vines. Both methods improve the soil, but the nuts, harvested too late for a cover crop to start, leave the loose, bare ground exposed to the ravaging rains and winds all through the winter months.[22] The sandy soils of Choctaw County are excellent for peanut growing and old fields that have been "idle" a year or so produce abundantly. Many tenants plant a field one year and let it "lay by" the next. Proper rotation, cover crops, and other conservation measures could eliminate this practice, but land tenure evils continue. The federal government has supported a subsidy on the peanut price since the war started. The augmentation varies from year to year but was 90 percent parity in 1946.[23]

Mr. Tom Landrum (Superintendent, Woldert Peanut Plant, Hugo, Oklahoma) said that the high government parity made an aggregate price too high for private concerns to compete. Mr. Landrum's plant usually operates thirty weeks and handles an average of fifty cars of peanuts each season. He operated only five weeks last year (1947) and only handled nuts for the government.

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21 B.A.E. figures reveal that8,200 acres of peanuts were not harvested in 1943.

22 Huber Self, The Peanut Industry of Oklahoma, p. 33.

23 Ibid., p. 69.

A large percent of the peanuts handled at Hugo are grown in the county. The nuts are shelled, treated, and a few sold to candy and peanut butter companies. Seventy million pounds of nuts per year go to Europe from Woldert Mills (Dublin, and Tyler, Texas, and Hugo, Oklahoma).[24] The future of Choctaw County peanuts depends on the present demand or length of time the government will pay subsidy.

(2) Peas.

Cowpeas, a very desirable legume, fit well into a crop-rotation system. Farmers increased the acreage in the county from 672 acres in 1929 to 5,839 acres in 1939 (Table XIV, p. 58). This acreage comprises only a small percentage of the amount that should be planted; however, peas are becoming more and more important in the farmer's program.

Cowpeas thrive well throughout all the county and are planted in many different ways. Many farmers plant two rows of corn and one of peas, and others resort to planting two rows of corn and two rows of peas or four rows of corn and two of peas. Agricultural experiments have proven that corn planted with peas outyield unbroken (every row planted) corn.[25] Peas also do well sowed in unbroken corn when it is "laid by."

Peas and cane, peas and sudan grass, and peas alone make a desirable hay or pasture. They can serve as shades for watermelons, cantaloupe, or cucumbers and can be picked or mowed or grazed off later. Peas provide an excellent feed for all livestock and poultry either as a pasture or when dried and they are the "staff of life" for many Choctaw County families. This plant

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[24] Conference, Mr. Tom Landrum, Superintendent Woldert Peanut Company Plant, Hugo, Oklahoma.

[25] Conference, Mr. Bill Stephens, Vocational Agriculture Teacher, Boswell, Oklahoma.

volunteers once it starts and will produce with very little work and attention.

(3) Alfalfa.

The 900 acres of alfalfa in Choctaw County lie along Red River. It does better where the winter rainfall is scanty and the soil less leached and hence higher in calcium. This plant thrives only on soils rich in lime and, consequently, many acres are limed before alfalfa is planted. The hay must be cut soon after it is mature, and Red River bottom is too far from the dehydrater to transport; therefore, there is always danger of rain damage.[26] Mr. Ward, County Agent of Choctaw County, stated that many more acres would probably be put in this crop since the lime plant is at Fort Towson and mobile degydraters are now in use.

Table XIV shows 1900 acres of legumes for hay in 1939. This figure represents an 1850 acre increase over the 1919 acreage. These legumes consist of vetch, sweet clover, beans, winter pease, soybeans, lespedeza, and many others. These legumes do well on Choctaw County soil, and the acreage increase indicates a growing concern for the depleting fertility of the soil.

4. Other Uses of the Land

Hay, one of the important crops of Choctaw County, has made a gradual shift from wild to tame grass. Note Table XIV--wild grass acreage decreased from 6,000 to 1,500 acrea between 1919 and 1929 and tame hay acreage increased from 1,100 acrea in 1929 to 6,000 acres in 1945.

Continual harvesting prevents reseeding of the tall native grasses, thus many acres of bluestem have been replaced by wire grass. Wire grass is less productive than bluestem and livestock will separate and discard this coarse feed when possible. Buyers "dock" hay containing wire grass.

At present most of the hay on prairie lands consists of Johnson grass

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[26] Conference, Mr. Houston Ward, Choctaw County Agent, Hugo, Oklahoma.

harvested from meadows formerly under cultivation. The grass is perennial and does well in Choctaw County.[27] The small seeds make this plant's migration an easy matter. Livestock, birds, wind, and water scatter the seeds and, as a result, the state has passed a law preventing intra-county sale of Johnson grass hay.

Table XV

Land Uses on Farms in Choctaw County by Stated Years.
(Based on U. S. Census)

Year	Crops Harvested	Crop Failure	Total Acres Idle or Fallow	Hay Crops	Woodland on Farms	Plowable Pasture
1925	130,510	4,014	11,783	4,304	63,109	14,205
1930	117,009	10,015	17,890	1,525	82,189	14,511
1935	102,063	8,925	21,345	7,823	109,302	13,673
1940	92,261	2,914	22,987	2,720	97,628	31,722
1945	74,512	2,515	14,353	6,098	121,269	

Note the decrease in harvested acres for the county beginning in 1925 and continuing throughout the depression and war years. This indicates a crop transition also, or a trend away from the corn-cotton row cropping. Crop failures and idle acres increased during the drought years of 1930 and 1935. The government conservation program helped increase the idle and fallow acres.

Woodland on farms refers to timber under fences. Many acres of woodlands are fenced and used for pastures. Note the increase of 1945 over 1940 caused by pasture demands for high priced cattle. (Timber discussed later)

5. Small Acreage Crops.

Almost all farmers produce sufficient vegetables for their own consumption. Cabbage, onions, snap beans, English peas, mustard greens, celery, okra, pepper, squash, radishes, tomatoes, turnips, potatoes, sweet potatoes, cantaloupes, cucumbers, watermelons, and sweet corn are a common sight in every garden. A

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[27] W. H. Buckhannan, A. C. Anderson, and O. H. Brensing, "Soil Survey of Choctaw County, Oklahoma," U.S.D.A. Bureau of Plant Industry Series No. 8, p. 13.

few of these--potatoes, sweet potatoes, watermelons, cantaloupes, and cucumbers--are produced on a commercial basis.

The Red River farmers made potatoes the most important crop from this area and the crop made up the larger part of the vegetable export. The government induced the farmers to greatly increase their acreage during the war years, but marketing facilities proved inadequate and many farmers used them for hog feed. Marketers use hand graders and no washers and thus give a low grade potato. The acreage increased from 188 acres in 1929 to 820 acres in 1939 and the yield varied from 100 to 250 bushels per acre.[28]

Sweet potatoes, grown mostly for local consumption, yield abundantly on the sandy upland soils although a limited market prevents this crop from being produced in large quantities. Sweet potatoes may prove to be a future cash income for the county if the dehydrated sweet potato (now in experimental stage) proves as successful as many experts anticipate.[29]

The Choctaw County farmer markets his watermelons and cantaloupes locally; however, a few truck to nearby markets. The early melons bring exorbitant prices but usually sell from ten to twenty-five cents before the season is over. Cantaloupes usually sell for five cents each. The farmer often feeds his late melons to the hogs.

The cucumber industry has gained momentum the last three years. The Craddock Food Manufacturing Company located at Garland, Texas, has bought cucumbers in the county all this time and the Brice and Waldrop Company of Denison, Texas, let contracts this year (1948). Rise in contract price for 1949 resulted as competition began. Craddock contracted for 400 acres in the

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28 Ibid., p. 12.

29 Conference, Bill Stephens, Vocational Agriculture Teacher, Boswell, Oklahoma.

Figure 17

CRADDOCK FOOD MANUFACTURING CO.
GARLAND, TEXAS

PICKLE CONTRACT FOR

_____ January 1, 1949

_____

This Agreement this day entered into by the CRADDOCK FOOD MANUFACTURING COMPANY OF GARLAND, TEXAS, and the undersigned Planters of _____.

That we, the undersigned, agree to sell and deliver DAILY to the Buyer's concentration station, located in _____ cucumbers the same day they are picked from the vines, which we agree to plant, cultivate, harvest and properly care for.

The Buyer agrees to receive said cucumbers and to pay the following minimum prices upon delivery at our Station at _____.

No. 1, not exceeding 3 in. in length and 7/8 in. in diameter--per 100# $10.00

No. 2, not exceeding 5 in. in length and 1-1/4 in. in diameter--
per 100# $ 4.00

No. 3, not exceeding 5-1/2 in. in length and 1 3/4 in. in diameter--
per 100# $ 2.00

No. 4, not exceeding 7 in. in length and 2-1/4 in. in diameter--
(Limited amount only) per 100# $ .50

This stock must be free from bullets, puffs, over-ripe, yellow, gourd-shaped, diseased and any unsound cucumbers.

The Buyer agrees to sell the seed for planting said cucumbers at $1.50 per pound. One pound of seed will plant one acre.

The Buyer shall have the privilege of closing this receiving station at any time during the season when the receipts fall short of 25,000 pounds of graded cucumbers in any one week.

It is expressly understood that the Buyer will not maintain or operate a concentration station or receive any of the cucumbers herein contracted for at this point unless a minimum of Two Hundred (200) acres or a maximum of Four Hundred (400) acres is contracted for prior to March 1, 1949, assorted from one (1) to five (5) acres to the Planter.

Neither party shall be liable for default in performing this agreement if said default is due to an Act of God, the public enemy, the authority of the law, fire, floods, death, strikes of causes beyond our control.

CRADDOCK FOOD MANUFACTURING COMPANY

This contract void unless signed by Buyer

By
Joe E. Craddock, Jr.

Boswell vicinity in 1947 but the competition from Brice reduced this figure to 200 acres in 1948. Figures are not available for the county acreage but many say it has grown by leaps and bounds.[30]

Cucumber cultivation and harvesting is a back-breaking task but is lucrative to the farmer, netting him on the average of $150 to $200 per acre. The better lands will clear $300 an acre.[31] The cucumbers are planted from one to three feet apart in three feet rows on poor and average soil. Better land produces a luxuriant growth and can be planted in wider rows. The farmer will plant a sufficient quantity to insure an ample stand (note "one pound per acre" in contract) and must thin the young plants according to the fertility of the soil. They are usually planted in the latter part of March or early April and begin bearing in June. Cucumbers grow rapidly and are picked every second day to prevent a lower grade (note in the contract that the larger the size, the lower the quantities). The whole family turns out to cucumber picking day and uses buckets, baskets, or any other container available. Burlap sacks are filled with these picked cucumbers and placed on wagons, pickups, trucks, tractor-trailers, or whatever the means of transportation and hauling to the grader may be.

After grading and crating, they are trucked to Garland, or Denison, Texas, to the pickler. Craddock purchased 400,000 pounds of cucumbers up to July 3 of this year (1948) and Brice bought 100,000 pounds, and the farmers estimate a million pounds for the season.[32]

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[30] Conference, Mr. Fred Wiggins, Farmer, Sunkist, Oklahoma.

[31] Conference, Mr. J. B. Richburg, Farmer, Route 3, Boswell, Oklahoma.

[32] Conference, Mr. Barton Joiner, Farmer and Manager of Craddock Cucumber Grader, Boswell, Oklahoma.

Mr. Houston Ward, Choctaw County Agent, stated that cucumbers planted in any one locality over three years at a time suffered from disease infestation of the area, and that this area will probably not grow the plant successfully many more years.[33]

Beans are grown successfully in the county, especially along the stream bottoms. Three, forty-five acre patches were planted in the Kiamichi bottom in 1946 and many smaller patches throughout the county.[34] Choctaw County Chamber of Commerce gave the 1946 cash income as $25,000 for beans, $12,000 for cucumbers, $15,000 for tomatoes, $7,500 for melons, and $4,500 for peas.

The Choctaw County farmers marketed seventeen acres of green tomatoes in 1946,[35] and in 1947, fifteen carloads were shipped from Hugo as a result of the Paris cannery contracting for the product.[36]

The county's fruit is consumed locally and many trucks import apples and peaches from Arkansas to "peddle" during the fruit season. Many of the orchards are old and deteriorating and an insufficient quantity of young trees gives a diminishing acreage for the county. Until the last fifteen years most farmers maintained a well balanced orchard including peaches, apples, pears, grapes, plums, and apricots, but late freezes and frosts and summer droughts have tended to discourage fruit growing. A small area in the northeastern part of the county has sufficient elevation and air drainage to thwart these weather hazards.[37] All except citrus fruit will mature in the county.

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33 Conference, Mr. Houston Ward, Op. Cit.

34 Ibid.

35 United States Census of Agriculture, 1940, p. 300.

36 B. A. E. Figures.

37 Buckhannan, Anderson, and Brensing, Op. Cit., p. 13.

The 1939 census reported 15,063 bearing peach trees, 2,222 bearing apple trees, 2,193 bearing pear trees, and thirty-eight acres of berries.[38] The county devoted 922 acres to orchards and vineyards in 1945.[39]

Table XVI

Showing the Yearly Total, and Average Income from Five of the Leading Crops of Choctaw County Over an Eight-Year Period

Year	Sorghums	Peanuts	Cotton	Corn	Oats
1939	6.19	12.68	13.98	7.60	6.18
1940	8.93	15.66	16.63	12.44	6.89
1941	4.10	19.68	9.08	6.74	6.79
1942	6.14	20.53	20.16	10.74	5.05
1943	6.88	13.06	24.52	12.20	10.58
1944	11.51	25.33	29.32	18.60	13.50
1945	10.17	35.03	12.22	14.26	10.65
1946	14.00	43.59	31.72	19.58	11.40
Total	67.92	185.56	157.63	102.16	73.02
Average	8.49	23.19	19.70	12.78	9.13

6. Cash Crops of Choctaw County

The table shows the value of the grain, nut and lint, and the value of cane used for sorghum and bundled for forage. If the hay from the peanut vine, and other indirect cash benefits are added, the picture will be somewhat altered.

If any of the sorghums are planted as soon as the danger of frost is over, the farmer can get two cuttings, and, if the frost is late, the third growth is matured enough for an excellent fodder (not headed). When the head is cut, new shoots will grow out from every joint, and if the season is good, these shoots will make a better grain crop than the first cutting.[40] However, if the second growth is not cut and livestock is allowed to graze the fresh

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38 Sixteenth Census of the United States, 1940, p. 275.

39 United States Census of Agriculture, Op. Cit., p. 301.

40 Conference, Mr. Carlton Hall, Farmer, Route 1, Bennington, Oklahoma

frostbitten patch, the tannic acid will cause bloat or prussic acid poisoning.[41]

The corn field furnishes a good fall pasture for from six to eight weeks after the corn has been gathered. This is especially true if corn and peas have been alternated (two rows of corn and one row of peas or four rows of corn and two rows of peas). Farmers have been employing this soil conservation practice on the poorer farms for the last several years and have found it to be very beneficial. The acreage of peas with corn has increased from 300 in 1929 to 1,081 in 1939.[42] Peas are a legume and almost as high in food value as corn, but if horses and mules are allowed to feed on a patch of peas planted in sand, they will pick up enough sand with the peas that have fallen to the ground to cause them to have sand colic. This is almost always fatal to the animal and becomes more dangerous if the stalkfield has been eaten out very closely.[43] (The teeth of mules and horses raised on sandy land are always worn off enough to make the animal appear to be from two to five years older if sold to a jockey. Dealers determine the age of mules and horses by looking at their teeth).

Corn, oats, and sorghums leave a winter protective cover of crab grass, Johnson grass, other native grasses, and native weed growth for the land, but cotton is laid by too late for a cover to form. Peanuts are pirates to the soil if a winter cover crop is not planted, and this is hard to do because most of the farmers in this area shock the nuts around poles which are left in the field from one to three months, depending on the weather.[44] The cover

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[41] V. G. Heller, "Prussic Acid Poisoning in Livestock," Oklahoma Experiment Station Mimeographed Circular No. 77, p. 1.

[42] Census Figures.

[43] Conference, Mr. Carlton Hall, Op. Cit.

[44] Self, Op. Cit., p. 30.

crop must be planted immediately after the nuts are dug to insure the germination of seed before the cool weather begins. Many farmers stack the shocks at regular intervals, which makes it possible for the drilling of the seeds crosswise (north-south and east-west) between the shocked rows thus leaving a checkerboard effect. Other farmers haul the peanuts to one end of the field or even near the barn or shed before shocking. This adds to the initial shocking expense but saves the farmer's baling and sledding expense when threshed since he can have the hay doodled into his barn or shed.[45] The nuts will not cure out as quickly when shocked in this manner but the farmer can turn his hogs on the range earlier. This is very important because many hogs are turned out in the field and will fatten very fast if the mast is good (acorns, pecans, hickory, and pig nuts, etc.)

Many farmers also get two and sometimes three cuttings of hay from a patch of oats in a Johnson grass patch or, if the patch is clean, they are able to get the oats, then follow with a crop of cotton, sorghum, peanuts, or even a crop of June corn, which will beat the early corn if sufficient and timely rains come, but will completely fail if a drought hits. Table XVI, p. 71, showing cash receipts only, is very misleading. If we add the cost of production, we see another picture. For instance, the farmer buys his oats, sows or drills them in, and forgets them until harvest time (most farmers in this area turn small grains under as a late freeze will kill a drilled patch because the roots are too near the ground level) while corn, sorghum, peanuts, and cotton must be plowed from three to five times each before they are laid by, and they also must be hoed once or twice. The type of crop occupying a plot of ground the previous year determines the mount of work required to keep a crop clean the following year. For instance, a crop following peanuts

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[45] Ibid., p. 33.

or cotton will require less than half the amount of work to be kept clean than the came crop following corn or any other crop that is laid by early enough for a cover crop to mature seeds. (That is assuming that the cotton and peanuts are cultivated as they should be.)[46]

Peanuts are almost six times as expensive to grow and harvest as oats, about four times as expensive as corn, and approximately twice as expensive as cotton and sorghum (if made into syrup). Table XIV does not show that a farm laborer's wages jumped from 75¢ per day in 1939 to $5 or $6 a day in 1945, that is, if the worker could be found. Farm labor became so scarce in 1942 that many farmers who had several acres of peanuts plowed them up and pulled them into a windrow with a revolving or side delivery rake.[47] The farmer is taking a big chance when he does this. Note (figure 16, p. 62) that only two Septembers and no Octobers out of the eight years had slight precipitation. When rains do start in the fall, they are generally accompanied by several days of cloudy weather with a high relative humidity. However, if a farmer gets a week of sunshine on windrowed peanuts, they are ready to be threshed. Many times he loses all of his hay, and the nuts go as No. 2's, 3's, and some are even fed to hogs.

Shocking insures No. 1 peanuts because threshing can be postponed until the weather is favorable, but it is very expensive if the farmer does not have his family labor and is a back-breaking job whether it be family or hired labor. Peanut price is inflated because the government has been giving a parity on peanuts "for the oil" since the war started. Parity is the government's paying the difference between the market price and a guaranteed set price.

Too many factors enter into the picture to determine which of these crops

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[46] Conference, Mr. Jasper Harl, County Agent, Love County, Marietta, Okla.

[47] Conference, Mr. Carlton Hall, Op. Cit.

is the most profitable. It all depends upon the needs of the farmer, kind of growing season, amount of available farm labor, and, above all, the market price. It is an established fact that the row crop farming is being replaced by truck farming and general farming. Several acres of tomatoes, cucumbers, and popcorn have been planted in the last three years and have proven very profitable and if the farmers succeed in developing a market for these crops the area will witness a further deviation from the row cropping. The cotton gin has already been torn down at Boswell and the cotton warehouse at Hugo was torn down last year (1947).

The farmers would profit both financially and from a conservation standpoint if a large percent of the land were put back into native Bermuda or some other pasture grass and grazed. Many farmers are pecaning the land, but this is for the future and too many farmers are tenants who look only to a twelve-month's future, thus making a long time conservation program impossible. Pecans are indigenous to this area and since grass and pecans will grow on the same land, this combination would be the most feasible for the area.[48]

In view of the fact that the excellent cropland acreage decreases as the fertility diminishes, farmers turn to livestock raising to augment their income.

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[48] Conference, Mr. E. L. Whitehead, Former County Agent, Bryan County, Durant, Oklahoma.

CHAPTER VIII

LIVESTOCK

All the Choctaw farmers maintain a small supply of work animals (frequently only one team) and a larger percent possess a few milch cows, a few chickens, and a meat hog or two. The free range enables livestock rearing to develop simultaneously with agriculture. (Table XVIII, p. 80) The many acres of abandoned and eroded farmland, however, are favorable to the livestock industry.

Table XVII

Livestock Numbers in Choctaw County by Stated Years. (Based on Census and B. A. E. Figures)

Year	Total Cattle & Calves	Cows & Heifers Milked	Horses & Mules	Pigs & Hogs	Sheep & Lambs	Chickens on Farms
1930	10,692	4,624	9,813	12,041	196	193,522
1935	21,197	6,975	8,099	10,782	476	134,021
1938	21,400	7,700				
1939	22,500	8,100	8,760	15,700	800	117,000
1940	23,900	8,300	8,600	17,700	1,200	124,000
1941	23,100	8,100	8,990	16,100	1,300	143,000
1942	25,600	8,700	9,040	13,600	1,500	151,000
1943	27,200	9,200	8,400	13,200	1,400	172,000
1944	27,000	9,300	7,640	12,300	1,200	171,000
1945	26,000	5,947	8,160	10,800	1,100	148,000
1946	23,200	6,700	6,800	12,400	400	107,500

Note the rapid increase for cattle between 1930 and 1935 and the gradual growth in number since that year. Correlate this with deduction in acres of crops harvested and augmentation of acres in hay crops in Table XV, p. 66.

Approximately one-third of the cattle are used for dairying purposes. A few dairy herds, in the Hugo vicinity, produce for the local market, but most of the cattle are of grade stock. Many people living on rough roads too far from a milk market use the cows for a dual purpose. They breed the mixed cows to purebred bulls (Hereford, Polled, or other beef-type) and milk one, two,

and sometimes three teats, leaving the remainder for the calf. Thus, they are able to sell cream and have a calf for sale in late summer or early fall. The cows and calves are kept in separate pastures, and the calves grow very well. However, they do not bring top price when sold, but many people think the cream and milk fed to pigs more than pay the difference. A few farmers run the cows and calves in the same pasture throughout the day and keep them separate during the night. This method allows the farmer to milk in the morning before the dew dries and work later in the afternoon. Too many cows are not fed after grass begins to grow and, consequently, dry up as soon as the calf is sold or weaned.

1. Beef Cattle.

Beef cattle are well distributed throughout the entire county and the number has steadily increased since the war started. Purebred herds are scattered throughout the county, but many of the range cattle are mixed or "stocker" type. Herd improvement is possible in the farming district where the pastures are fenced but the free range (several thousand acres in the Boggy and Kiamichi Bottoms and along the rough northern border) allows free mixing of the cattle and thus many calves are sired by undesirable bulls.

All the people who so desire run cattle on the range but a limited number run large herds on the free grass. The "switch cane" and "winter grass" starts growing as soon as cool weather begins and the leaves fall, and does well throughout the winter months. If the range is not overstocked, cattle and horses stay in good shape without additional feed. In fact, many Boggy cattle live a lifetime with no additional feed except a few blocks of hay in snowy weather. Only the native cattle seem to be hearty enough to endure the most rigorous adverse conditions and exist. Before stockmen purchase cattle for the range, they must be sure that they were raised on the range. If not a

native, a cow turned on Boggy range will die or starve during a hard winter without feed. The people say that other cattle do not know how to "rustle a living." Choctaw County cattle are hearty indeed, and a grown cow will grow 200 pounds larger when shipped west a few miles.[1]

Stockmen from Marshall County, located approximately forty miles west of Choctaw County, buy these cattle and pasture them a season before feeding out to get the additional growth (this structural growth is due to the minerals in the grass and not the type of cow). The farmer who has stock in Boggy Bottom must watch for floods continually during the spring and early summer months. They listen to the weather forecast daily and drive the herd to the flood-free grounds before the rise. Occasionally, high waters cut through the bottoms unexpectedly and horsebackers must ride through the inundated areas and gather the stock from the knolls and "swim" them to safety. After the kine are bunched, a man on horseback can swim through the water and the whole herd will string along behind. The lead man will swim his horse at a slow gait and stop on high ground occasionally in order not to tire his followers until he reaches dry land.

Hogs caught in water will try to climb upon a floating log and keep this up rolling it over and over, thus tiring themselves until they drown. The people are neighborly and hospitable and everybody participates in this "must job" when a rise comes. A man will pull his neighbor's cow from a bog-hole as soon as he will his own.

The cattle are all rounded up and the new ones marked and branded in the spring and put back in the bottoms after high water. The ranchers round up their calves in late summer and early fall to sell and wean. Many stockmen

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[1] Conference, Mr. Frank Bounds, Marshall County Stockman (now deceased).

try to have cattle in a stalk-field before acorns fall because, though they fatten hogs, they have an opposite effect on cattle.

Very few cattle are fed out in Choctaw County. The farmers either sell to local traders or sell through the ring. (Hugo has an auction sale every Tuesday). Milk-fed calves always bring a comparatively good price, and most cattlemen try to sell a fat calf each year from a cow. This pays well if the cow runs on the range or if the pasture is cheap.

2. Swine.

Hogs are generally distributed throughout the county. Most people keep meat hogs and those in town purchase pigs which are fed the swill. The larger herds, however, seem to be in the hardwood forested areas. Corn producers do raise hogs, as it is more economical to ship "corn meat" than "corn grain." (Roughly five pounds of corn produce one pound of pork.)[2]

Free range for hogs is more limited than that for cattle as hog fences require net wiring. Stockmen run many hogs on the range all year and everyone turns them out after harvest time. Hardwood trees furnish considerable quantities of acorns, pecans, hickory nuts, pig-nuts, wild fruits and berries, and hogs grow and fatten during the fall and winter. Peanut growers occasionally fatten hogs on peanuts and finish them on corn. Most farmers raise mixed breed hogs and market them locally.

3. Sheep and Goats.

The Choctaw farmer derives little income from sheep and goats. Man's best friend, the dog, began killing the sheep a few years ago and many farmers have abandoned the project in recent years. (Note Table XVII, p. 76).

4. Horses and Mules.

Early settlers in the county raised mules and horses and drove them to

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[2] Livestock Market News, Vol. 16, no. 45, Nov. 12, 1947, p. 889.

eastern markets, but since 1920 the number raised has been insufficient to make replacements, resulting in importation from tractor sections of the country. Fewer tractors are used on the small sandy farms of Choctaw County than in other sections, thus the mule and horse have held their importance here longer than in other sections of the state. The stockman makes little effort to improve his "woods" colts. In fact, these ponies and mules are tougher than the draft animals shipped in. Colts raised on the rocky range grow hard hoofs that will not crack in the summer when put on roads, while horses from sandy land must be shod continually. The farmers still use team power (Figure 3A, p. 18), however, the financially able seem to turn to the small tractors.

5. Poultry.

Almost every Choctaw farmer supplies his poultry needs. War demands augumented the number of poultry a bit, but high-priced and scarce feeds immediately reduced this number. (Note Table XVII). A few guinea fowls, ducks, turkeys, and geese are raised, but the chicken holds top place in number and in importance.

Table XVIII

Value of Agricultural and Livestock Products in Choctaw County in the Stated Years According to the Federal Census

Product	1909	1919	1929	1939
Cereals	$374,228	$1,747,658	$ 550,575	$377,752
Other grains and seeds	4,629	55,865	26,393	52,294
Hay and forage	44,168	243,548	53,808	146,115
Vegetables	53,645	423,110	101,187	185,968
Fruits and nuts	4,789	130,712	45,325	27,193
All other field crops	362,156	3,741,381	1,204,323	385,624
Animals sold and slaughtered	232,350			310,270
Dairy products sold	70,214	45,864	114,092	91,945
Poultry and eggs produced	71,078	309,764	289,285	129,203
Wool shorn	16	235	78	1,905

The infertile and leached soils (maps, pp. 43 & 44) necessitate the increase of pasturing more farms, and the mild, open winters make possible

pasturing throughout the year. The county, handicapped by a small urban population, lacks a ready milk market. The future of beef cows is bright; however, the people should strive to improve the quality of the herds in the county.

Although farming and livestock raising are the principal occupations, commercial industries employ approximately 300 inhabitants of Choctaw County.

CHAPTER IX

COUNTY INDUSTRIES

The manufacturing payroll of only 321 employees shows the lack of industrialization of Choctaw County. Only 4.8 percent of the population engage in manufacturing. No outstanding industries exist in the county and those which do exist only employ small groups of local laborers. The creosoting plant at Hugo employs the greatest number, around twenty, while other industries use employees varying from this number to only two and three in the mattress factories.

1. Creosoting.

The Hugo Creosoting Plant, located one mile west of the city, is a branch of the American Creosoting Company with headquarters in Louisville, Kentucky. The Frisco Railway Company has a storage yard covering several acres adjoining the plant and connected to it by narrow gauged tracks. The plant treats ties for the Frisco Railway Company and telephone poles and fence posts for local consumption.

Laborers load small buggies (Fig. 18A and 18B, p. 83) with ties or poles and run the cars into the central cylinder (7 x 132 feet) then seal the cylinder and run it full of fluid (50 percent creosote and 50 percent tar). The charge is then heated to 219° F. with 175 pounds pressure per square inch. This pressure and temperature, held constant on the charge, varies from a short time on small pine and cedar posts to five hours for oak ties. From 750 to 1000 ties are handled per charge. After the creosote has thoroughly penetrated the wood, it is drained off and the load is pulled out and switched to another part of the yard. A 7 x 9 x 8½ foot cross-tie consumes 2.6 gallons of creosote.

Four storage tanks, 30 x 30 feet, hold the creosote imported from

Fig. 18a. Load of Pine posts switched from the track leading into the cylinder just inside the door. The 132' x 7' cylinder has a capacity of from 750 to 1000 ties and many more than this number of posts. A 7' x 9' x 8½' tie will absorb 2.6 gallons of fluid (tar and creosote). Green posts are steamed in the cylinder before being treated to drive off the excess moisture. American Creosoting Plant, Hugo, Oklahoma.

Fig. 18b. Frisco Storage Yard adjoining the Creosoting Plant. Ties are stored in this yard to await the creosoting process. The yard is interlain with narrow tracks.

Clarion, Pennsylvania, and the tar shipped from Danger Field, Texas. Two boilers, 100 h. p. each, furnish steam and pressure for the plant.

The plant operates approximately 250 days out of the year and employs around twenty local workers. The yard employs eight or ten of these men and pays them by piece work (a given amount for each tie loaded and unloaded). Common labor for the mill ranges from sixty to eighty cents per hour.

Choctaw County supplies a few of the ties but Frisco imports almost all of them from southeastern Arkansas.[1]

2. Lime Plant.

Approximately two miles east of Fort Towson, Oklahoma, at the foot of a precipitous limestone bank is located the Choctaw Lime Company. This plant, located on the Gates Creek, represents a $50,000 investment. Forty-five to fifty acres of the sixty-eight acres purchased by the stockholders along the creek is a solid limestone slab. Approximately three inches of soil overlies portions of this rock and the remainder is bare.

This soft variety calcium (ready to be used by the plants immediately) tests from 97.3 percent to 99.2 percent pure and is not burned before being used. At present the lime is being worked on a forty-foot face. A rig drills a forty-foot hole a few feet from the edge of the cliff. The hole is charged with a three by sixteen cartridge. The explosion jars off approximately 10,000 tons at one shot and the crane loads the loosed material on dump trucks. They in turn dump the rock into the crusher and a conveyor belt elevates the crushed rock into hoppers with spouts attached underneath, where the trucks load. (See figure 19A, p. 85)

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[1] Conference, Mr. J. A. Gilbert, Plant Superintendent, American Creosoting Company, Hugo, Oklahoma.

Fig. 19a. Crusher and Hopper at the Choctaw Lime Company lime plant near Fort Towson, Oklahoma. Lime rock is dumped into the crusher (to the left of the hopper) and crushed, then the conveyor chain hoists the crushed lime into the hopper. Trucks back under the two hoppers to be loaded.

Fig. 19b. Excavator and rig of the Choctaw Lime Company. The rig (on top of cliff) digs a forty foot hole for the charge. The excavator loads the lime boulders into dump trucks for the crusher.

The plant employs twelve workers and has a daily capacity of 300 tons. Mr. Trieschmann, President of the Company, estimates a limitless supply of the rock in the vicinity.

The lime is shipped to Louisiana, Arkansas, Texas, and Eastern Oklahoma.[2]

3. Other Industries.

Other industries of lesser importance to the county include wholesale houses, the Frisco Roundhouse at Hugo, Oklahoma, peanut milling company, (discussed in chapter on agriculture) cotton gins, bakery, dairy products plant, industrial iron works (where school bus bodies are made and mounted on the chassis), popcorn processing plant, hatcheries, ice plant, mattress factories, bottling plant, and saw mills (discussed in chapter on lumber).[3]

Manufacturing can be developed by use of local capital and by bringing outside firms into the area. Talk of decentralizing eastern industries has made a few people of the area hopeful and many city planners made a desperate effort to have congress repeal the high industrial state tax. An adequate supply of non-unionized local labor is available and living expenses are cheaper than in manufacturing areas.

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[2] Conference, Mr. J. W. Trieschmann, President, Choctaw Lime Company, Fort Towson, Oklahoma.

[3] Choctaw County Chamber of Commerce Handbook.

CHAPTER X

SUMMARY

Choctaw County's 790 square miles (501,760 acres) lies in Southeastern Oklahoma. The Red River forms the southern boundary of the county while the northern part lies in the transition zone between the Gulf Coastal Plains and the Ouachita Provinces. Spain and France controlled the area at different times, but the French traders and trappers explored the region and intermarried with the natives, consequently, French names are prominent in the county.

Choctaw County formerly comprised a part of the Choctaw Nation and when Oklahoma became a state all the land belonged to the Indians and freedmen. Today, however, all but a small percent of the land has passed into the hands of the whites.

The population of the county, approximately 7.5 percent Indian and 20 percent negro, fluctuates inversely with the prosperity of the state and nation. Prosperity means an exodus of the county's dwellers but low rent and cheap living during a depression invites the outsider and results in an influx of people.

The climate of Choctaw County is continental with occasional extreme diurnal and seasonal changes. The mean winter temperature is 45.4° F. and the mean summer temperature is 81.1° F. The precipitation (yearly mean, 42.55 inches) varies during the growing seasons which results in frequent crop failures.

Mixed forests originally covered the county (excluding the central prairie) but the present wood lands consist of cut-over and second-growth timber. Torrential rains have severely leached the Pedalferous soils and, as a result, many of the once productive fields are now abandoned. Soil conser-

vation is in its incipient stage in the county.

Over three-fourths of the residents derive a livelihood from the farm. Mixed farming characterizes most of the county with a major emphasis on corn. Cotton occupied 46 percent of the harvested acres in 1929 and only nine percent in 1945, while the acreage of cucumbers, beans, peas, watermelons, and legumes has increased tremendously. Cattle and hogs are well distributed in the county. Purebred herds are scattered throughout the county but many of the range cattle are of the mixed type.

Choctaw County industries consist of a creosoting plant, a lime crusher, a peanut processer, many portable sawmills, and numerous other industries of lesser importance.

Many government officials are advocating decentralization of the eastern industries. Choctaw County civic leaders are working vigorously to attract outside industries, thus giving a better local market for the farmer's products. If this dream materializes, the farmer can continue his present trend from the cotton-corn row-crop to truck farming. Only time will tell.

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