TYPE-OF-FARMING DEVELOPMENT IN MCINTOSH, MUSKOGEE AND WAGONER COUNTIES, OKLAHOMA

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TYPE-OF-FARMING DEVELOPMENT IN MCINTOSH, MUSKOGEE

AND WAGONER COUNTIES, OKLAHOMA

Ву

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Bachelor of Science

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PRELIMINARY TYPE-OF-FARMING MAP OF OKL'AHOMA



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INTRODUCTION

The term "type of farming" will be used in this study "to indicate a definite system of agricultural operation. More specifically, it means the kind, amount, and proportion of crops and livestock found on an individual farm. A type-of-farming area on the other hand, will be used to refer to a region in which exists a fairly high degree of uniformity in the types of farming prevailing as well as in the soil and climatic conditions."

The question is often asked, "Is it possible for individual farmers to determine the type of farming that will be carried on in an area?" A farm management research worker answered this question in broad outline when he made the statement:

"Geographical variability in types of farming is in general the result of regional fitness for agricultural production of a particular kind.

"This regional fitness is determined by the joint operation of three groups or classes of forces that affect economy of production. The first of these, the physical, includes soil, climate, distribution of rainfall, and others of similar character; the second, the biological, includes insect pests and the like; while the third has to do with such things as transportation, price relationships, distance to market, character of the people, and other man-made conditions. Farmers who misunderstand, ignore, or attempt to operate counter to the action of these forces usually find farming unprofitable." 2/

The tendency, then, is for farmers to conform largely to the action of these forces with the result that areas are characterized by a definite type of farming. Most individual farms conform, as a rule, to that type with minor variations.

- 1/ J. O. Ellsworth and F. F. Elliott, Types of Farming in Oklahoma. Okla. Agri. Exper. Sta. Bull., Stillwater, Oklahoma, No. 181, p. 1.
- 2/ Peter Nelson, Geographical Variability in Types of Farming in Oklahoma. Current Farm Economics, Okla. Agri. Exper. Sta., Stillwater, Oklahoma, Feb., 1936, Vol. 9, No. 1, p. 5.

The purpose of this study is to trace the development of types of farming in a specific section of Oklahoma, Area 9, as indicated by the changes that have occurred. Type-of-farming Area 9 in Eastern Oklahoma, made up chiefly of McIntosh, Muskogee, and Wagoner counties, is an area devoted to production of cotton, potatoes, and some dairy products for sale, and to self-sufficing farms. Subsequent analysis will be devoted to (a) establishing in considerable detail the nature of present farm organization in this area, (b) ascertaining what causal forces have operated to determine this form of organization, and (c) tentatively deducing what will be the future evolution of farm organization in this area.

Physical Factors

<u>Topography and Soils</u>: The topography, soil and climate, of Area 9 is influenced by its location at the southern end of a great belt of ever-marrowing prairie land extending south from Kansas and on the border of the Ozark Mountains. The area is divided into high rough stony hills, prairie lands, and bottom, and terraces of the Arkansas, Canadian, and Deep Fork rivers.

The prairies range from nearly level to very rolling, and are broken in places by treeless ridges and rounded hills. The prairies and hills are broken by the rivers, and also, small streams whose flow is intermittent according to season. The alluvial lands along the streams include both first bottom lands, subject to overflow, and second bottom lands which have been free from overflow for some time.

The soils in the relatively small geographical area included in Area 9, although for the most part from the same parent material, include many recognized types of soil which can be grouped into three

classes -- prairie soils, mountain soils, and bottom soils.

<u>Climate:</u> The mean annual precipitation for the Muskogee Station located in Area 9, was 41.35 inches during the years 1913 to 1930. The greater proportion, roughly 60 percent, of this rainfall occurred during the growing season from April to September inclusive. (Table 1).

The mean annual temperature was 60.9° Fahrenheit, the absolute maximum 110° Fahrenheit, and the absolute minimum -11° Fahrenheit, while the average annual minimum for the 18 years was 49.7° Fahrenheit, and the average maximum 72.1° Fahrenheit.

The source records show April 18 to be the latest killing spring frost date recorded, and February 19 the earliest date for the last killing frost. The earliest killing frost was recorded October 10, and the latest, November 24. There were 265 frost-free days in the year with the greatest number on record, and 179 days in the year with the smallest number.

McIntosh County records show a frost-free season of 216 days with March 28 as the average date of the last killing frost, and October 30

3/ "The first division includes the Gerald, Oswego, Spearfish, and Bates series, the soils of which are residual in origin from the sandstone and shale of the Winslow formation; and the Leslie series, which is residual from shale and limestone of the Morrow formation. Rock outcrop occurs in the prairie section.

"The second division includes the Hanceville and DeKalb series and rough stony land.

"The third division, the bottom-land soils, comprise the Yahola and Oswego series, occupying the first bottom and the McClain, Reinoch, Brewer, Muskogee, Shawnee, and Teller series, occurring on second bottom and high terraces." U. S. D. A., Field Operation of Bureau of Soils, Fifteenth Report, p. 1891; and U. S. D. A., Soil Survey of McIntosh County, Oklahoma, Bur. of Chem. and Soils in cooperation with Okla. Agri. Exper. Sta., Stillwater, Oklahoma, 1938, p. 7.

Contraction of the	1	Te	mperat	ure		1	Precipitation						
	:Aver	-:Aver	-1	:Abso-	-:Abso	-1 1	Total amount	1	Total amount				
Month	:age	:age	:Mean	lute	:lute	:Mean:	for driest	:	for wettest				
	:maxi	mini	-:	:maxi.	-:mini	-: :	year	:	year				
- Andrew Barr	:mum	:mum		:mum	:mum	1 1		:	the second second				
		(Degree	s)			(Inc.	hes)				
Dec.	30.6	50.2	40.0	78	- 4	2.45	3.02		5.87				
Jan.	27.6	48.0	38.4	76	-11	2.83	1.34		6.23				
Feb.	32.0	53.3	41.4	87	-11	1.75	1.33		1.58				
Mar.	39.1	61.8	51.5	93	10	3.33	3.61		4.82				
Apr.	49.9	72.1	60.7	92	23	4.90	2.37		5.88				
May	58.1	78.9	68.3	96	36	4.45	2.71		8.11				
June	66.8	88.4	77.0	106	48	4.23	.54		4.24				
July	70.2	93.9	81.0	107	53	2.73	1.49		.63				
Aug.	69.7	94.2	81.6	110	48	3.70	5.73		2.23				
Sept.	62.6	86.7	74.7	107	36	3.89	4.84		5.41				
Oct.	50.5	75.1	62.9	95	16	4.14	.75		9.97				
Nov.	39.8	62.5	51.4	85	15	2.95	.24		4.89				
Annual	49.7	72.1	60.9	110	-11	41.35	27.97		59.86				

Table 1. Temperature and Rainfall Data for the Muskogee Station; Month and Annual Values, 1913-1930

Source: Based on U.S.D.A. Weather Bureau Summary of U.S., 1930, Section 43. as the first in the fall. Frost has been recorded as late as April 21, and as early as September 29 in McIntosh County.

Thus meteorological data indicate, as was summarized in the Soil Survey Report, that Area 9 is characterized by rather wide extremes of $\frac{4}{4}$

4/ Language of the report concerning this aspect of McIntosh County agriculture was as follows:

"The climate is continental and characterized by wide, and often sudden, changes in temperature. Ordinarily the summer season is hot, and dry periods are frequent. The winters are usually mild, and extremely cold weather is rare. A few snow flurries occur during most winters but are of short duration. The spring season is rather windy but pleasant, and the rainfall is more abundant than at other seasons of the year. At least 60 percent of the average annual rainfall.....falls during the growing season, from April to September inclusive. During this period heavy showers of short duration prevail, but during the winter, longcontinued light rains are common. Occasionally prolonged droughts occur during the growing season." U. S. D. A., Soil Survey of Mc-Intosh County, Oklahoma, Bur. of Chem. and Soils in Cooperation with Oklahoma Agri. Exper. Sta., Stillwater, Oklahoma, 1938, p. 7.

PRESENT TYPE OF FARM ORGANIZATION

The purpose of this study is to trace the development of types of farming in a specific section of Oklahoma, Area 9, as indicated by the changes in farm organization that have occurred. Variations exist from county to county within this relatively small area. Such variations of minor nature will not be discussed at length for in the main the type of farming as it exists today has developed through the same steps, in each county.

The average size of the 3,410 farms in McIntosh County 1935 was 96.7 acres per farm. While the range for these farms ranged from three to above 1000 acres. (Table 2). However, the greatest concentration of numbers is in the group 50 to 99 acres; 80 acres being the size generally found. There are also about one-fourth of the farms in the 20 to 49 acres size group, where the 40 acre farm is most frequently found. There are many 120 acre farms and quite a number of 160 farms are in the size group 100 to 174.

Only 15.9 percent of the farms in McIntosh County were operated by owners in 1935, 5.7 percent were operated by part owners, and .1 percent by managers, while 78.3 percent of all the farms were operated by tenants. (Table 10).

The explanation of such a large propertion of the farms being operated by tenants is that mineral, corporate, and Indian ownership, together with an overcrowded farm population has broken the land into small units, thus practically forcing the cropping system and land use to place the emphasis on immediate cash returns rather than on long time continued produc- $\frac{4a}{4}$ tivity.

44 Peter Nelson, Land Tenure and Agricultural Conservation, Current Farm Economics, Okla. Agri. Exper. Sta., Stillwater, Oklahoma, April 1938, Vol. 11, No. 2, p. 27

Table 2 . Total Number of Farms, Average Size of Farms, and Size Distribution in McIntosh, Muskogee, and Wagoner Counties, Census Years, 1910-1935

	: Number	Ave.	1		1.1.1.1	Clas	ss in	terva	ls			
	:farms	:size	1	: 3-	1 1	1.1.1.20		1	:	1 .	1	3
	1	1	: Und er	: 9	:10-:	20-	: 50-	:100-	:175-	:260-	-: 500-	-: Above
	1	1	: 3	1	:19	49	: 99	:174	:259	:499	:999	:1000
McIntosh	County		11.0									
1910	2785	84.3	4	39	86	923	947	618	104	54	9	1
1920	3449	88.1	2	38	69	1133	1212	763	135	77	14	6
1925	3422	78.7	-	29	112	1211	1211	688	114	53	4	-
1930	3517	90.1	21	70	167	899	1264	833	162	82	15	4
1935	3410	96.7	-	47	87	887	1248	869	154	96	17	5
Muskogee	County											
1910	3192	100.5	2	60	163	930	1060	653	146	130	33	15
1920	3531	98.5	4	38	131	1036	1141	768	223	153	30	7
1925	3958	78.8	1	121	243	1264	1372	709	156	75	12	5
1930	4487	86.5	56	138	224	1253	1481	954	229	121	26	5
1935	4480	88.8	8	205	279	1159	1462	977	233	130	18	9
Wagoner	County											
1910	2713	99.7	4	32	126	969	696	630	136	88	22	10
1920	2453	114.8	1	34	75	730	649	604	178	141	30	11
1925	2935	89.9	-	109	180	900	901	618	129	72	17	9
1930	3154	91.8	3	84	145	1011	941	692	170	86	14	8
1935	3252	94.0	1	167	227	941	899	724	162	99	21	11

Source: United States Census, Vol. I, 1935; Vol. II, Part II, 1930; 14th Census 1920; Vol. VII, 1910. This hypothesis is partly verified by data from a summary of the Agricultural Adjustment Planning Project's Survey of 1935 and 1936. Since only a small sample, 59 farms, was used the size groups do not correspond to those used by the Bureau of Census. The average size of these farms was 155.6 acres. This is accounted for by the fact that the sample is small, and, too, the definitions of a farm were not the same. The Land Planning Project counted anything a farm that was under the management of one man, thus a farm operator with two share croppers was counted one farm. The Census Bureau would count such an organization three separate farms. And, too, it is quite likely that such a small sample would be accompanied by some bias resulting from selecting the better farms or better farmers.

Cotton was grown on practically all farms but accounted for a steadily diminishing percentage importance of the crop land as farms increased in size. (Table 3).

Oats are grown on twenty of the 59 farms, the acreage ranging from 12.5 for the smaller farms to 47.3 for the larger farms. Thus the proportion of the total crop land in cats increases as the size of the farms increase.

Combination of sub-marginal lands into larger units has resulted in a less intensive type of agriculture especially on the rolling lands. The yields of cats are fairly satisfactory on the poorer grades of land. Therefore, livestock feed crops are the combinations used generally. Thus the proportionate acreage of cats increases as the farms increase in size.

^{5/} This study was made under the supervision of Harold Miles, Extension Economist in Farm Management, Extension Division, Stillwater. Since this information has not been published the data were taken from the original sheets in Mr. Miles' office, with his permission.

Table 3.

Land Use and Numbers of Livestock in 1936 for 59 McIntosh County Farms According to Size

	: Tota	1 59 far	ms	: 0-	. 99 acre	8	: 100	- 174 ac	res	: 175 s	cres and	over
	Number	Average	91	Number	:Average	31	Number	Averag	eı	:Number	Averag	;e:
	:farms	:per	:Per-	:farms	:per	:Per-	:farms	:per	:Per-	:farms	:per	:Per-
	:report-	:farm	:cent	:report-	farm	:cent	:report	-:farm	: cent	:report	:-:farm	: cent
	ing	: (acres):	:ing	: (acres):	: ing	: (acres):	:ing	: (acres	;):
Cotton	58	24.1	26.2	20	14.3	29.5	26	25.3	29.1	12	37.8	21.6
Wheat	-	-	-	-	-	-		-	-	-		
Oats	20	27.9	10.5	4	12.5	5.2	9	19.7	7.8	7	47.3	15.8
Corn	58	32.6	35.5	19	18.3	35.8	27	39.2	34.9	12	62.9	36.1
Grain Sorghum	23	9.8	4.2	8	5.9	4.8	12	12.2	6.5	3	11.0	1.6
Sorghum Forage	27	8.5	4.3	10	3.6	3.7	11	11.3	5.5	6	11.5	3.3
Sudan	5	6.5	.6	1	7.5	7.8	4	6.2	1.1		-	-
Alfalfa		-	-		-		-		-	-	-	
Idle Land	20	21.0	7.9	7	10.4	7.5	8	17.3	-	5	41.6	9.9
Cowpeas	20	8.2	3.1	9	4.2	3.9	9	9.3	3.7	2	21.5	2.1
Sovbeans	-	-		-	-	-			-	-	-	-
Lespedeza	3	4.0	.2	1	2.0	.2	1	10.0	.4	-	-	-
Total Annual												
Legumes	22	8.5	3.5	10	4.5	4.6	10	9.9	4.4	2	21.5	2.1
Other Hay Crops	11	18.7	3.9	3	10.0	3.1	3	8.7	1.1	5	30.0	7.2
Total Hay	29	13.9	7.6	12	6.2	7.7	12	12.5	6.6	5	35.6	8.5
Garden	44	1.6	1.3	15	1.1	1.6	20	2.2	1.9	9	1.4	.6
Orchard	22	2.1	.9	5	1.2	.6	13	1.9	1.1	4	3.8	.7
Other Crops	21	7.3	2.9	8	5.1	4.1	5	3.2	1.4	8	11.9	4.6
Fotal Acres						00.00			-1105-020			
Planted	59	91.6	101.5	20	49.0	100.9	27	83.8	100.0	12	180.4	103.4
Actual Crop Lan	d 59	90.4	59.1	20	48.5	67.3	27	83.8	59.4	12	174.5	55.5
Native Pasture	53	51.5	30.3	17	14.7	17.4	25	43.8	28.7	11	126.2	36.8
Tame Pasture	9	10.9	1.1	4	5.8	1.3	2	1.4	.7	3	17.3	1.4
Naste Land	30	15.4	5.1	13	10.2	9.2	13	22.3	7.6	4	34.5	3.7
Woods	4	25.7	2.0	3	18.0	3.7	4	31.5	3.3	-		-

Continued

11

Table 3. (Continued) Land Use and Numbers of Livestock in 1936 for 59 McIntosh County Farms According to Size

	: :1 :1 :1	Tota Number Parms eport- ing	al 59 far :Average :per :farm :(acres	rms :Per- :cent):	: 0 . Number farms report. ing	99 acr :Average :per :farm :(acres	es :Per- :cent):	: 100 Number farms report ing	- 174 ac :Averag :per -:farm :(acres	res e: :Per- :cent):	: 175 :Number :farms :report :ing	acres an :Averag :per -:farm :(acres	d over e: :Per- :cent):
Farmstead Total Acres		20 59	1.3 152,9	.3 100.0	10 20	1.4 72.0	.9	9 27	1.2 141.1	.3 100.0	2 12	1.5 314.2	.1 100.0
	:N :1 :1 ;1	lumber farms eport- ing	:Average :number :per :farm :	:per :100 :erop :Acres	:Number :farms :report- :ing	:Average :number :per :farm	e:No. :per :100 :crop :acres	:Number :farms :report :ing	:Averag :number -:per :farm :	e:No. :per :100 :crop :acres	:Number :farms :report :ing	:Averag :number :per :farm :	e:No. :per :100 :crop :acres
Horses and mul All cattle	Les	58 58	4.2	4.5	19 19	3.1	6.0 12.8	27 27	4.2	5.0	12	6.0 17.2	3.4 9.9
Hogs Chickens		57 44 58	8.2 66.1	4.3 6.8 72.0	13 19	5.4 6.3 48.4	8.4 94.8	20 27	4.8 6.4 81.3	5.2 5.7 97.0	12	4.0 13.6 60.2	2.3 7.2 34.5

Source: Unpublished data from Agri. Adjustment Planning Project, 1935-36.

Possibly the same can be said of hay crops. (Table ³). However, this exception is made; the investment in haying equipment is relatively heavy, and to be able to make hay the principal crop the operator must have larger acreages. The item "other hay" in Table 3, refers chiefly to wild hay or native meadow.

All of the 59 farms had corn; roughly, one-third of the crop land is devoted to corn, and the percentage of crop land in corn about the same, regardless of the size of farms. This again means that the acreage per farm increases as the size of farm increase.

As a rule the native meadows are held by the farmers who own or control large acreages of land. The investment necessary for harvesting the hay crop makes large acreages necessary.

Native pasture, also, increases in acres, in percent, and in number as the size of farms increase.

From these data and from observations made within the area itself, the farm organization for the smaller farms is found to be similar throughout Area 9. The tenant owns two or three horses, or mules, one to 10 cows of some kind, two to four of which are kept for milk, a few hogs, and a small $\frac{6}{1000}$ flock of chickens.

Nearly every farm has a small patch of corn and cotton; variations from this are few. But as for the other crops there are variations, depending on location, fertility of soil, and the farmer himself. Some farmers plant grain sorghums, others plant legumes, and alfalfa is sometimes grown on the bottom land.

6/ Interviews with farmers, Muskogee County, Oklahoma, Aug. and Sept. 1935. 7/ The author has had personal experience in farming in an adjoining county. On the poor grades of land that will not support row crop farming the operator at times will sow oats in the spring and with favorable spring season the crop is made and harvested in June. The land then is permitted to lie fallow until next year. This system is used especially in connection with livestock raising.

In recent years grain sorghums have been used more extensively in Area 9. Grain sorghums withstand the summer drought better than corn especially on the sands of low fertility. (Table 4). Size of farms do not influence greatly the proportion of land in sorghum. (Table 4).

Near the larger cities the farmers plant crops as potatoes, melons, and truck crops on the good lands. The larger cities also furnish the market for dairy products and promote dairying in nearby areas.

The larger farms grow propertionately less cotton and have more livestock, devoting more land to feed.

Muskogee County has practically the same type of farming as that described for McIntosh County. The 1936 Agricultural Adjustment Project Survey covered 107 farms in Muskogee County, which is a relatively small sample of the 4,480 farms in the county.

Of the 107 farms surveyed 105 had cotton, with an average of 36 acres. This ranged from 23.5 acres for the zero to 100 acre group, to 69.9 acres for the group 175 and above. However, the percentage of crop land in cotton decreased as the farms increased in size.

Muskogee County farmers grow wheat on the larger farms; of 18 farms 175 acres and over, four grew wheat, the average acreage was 12.5 per farm.

Of the total 107 farms surveyed, 105 were growing corn. The average acreage per farm increased as the size of farm increased but the proportion of crop land in corn decreased as the farms increased in size.

Table 4 Land Use and Numbers of Livestock in 1936 for 107 Muskogee County Farms According to Size

	: Total	1 107 fat	rms	: 0.	- 99 aor	98	: 100	- 174 acr	'6 5	: 175	acres an	d over
2.1	Number	Averag	01	Number	Averag	91	:Number	Average	91	Number	Averag	01
	:farms	:per	:Per-	:farms	:per	:Per-	farms	:per	:Per-	farms :	:ber	:Per-
	:report.	-:farm	:cent	:report-	•:farm	:cent	ireport	- : farm	icent	report	-: l'arm	: cent
	:ing	: (acres):	ing	: (acres	/:	ilng	: (acres	11	iing	itacres	1:
Cotton	105	36.4	35.8	47	23.3	45.7	40	41.2	38.8	18	69.9	26.7
Wheat	8	12.5	.9	1	10.0	.4	3	11.7	.8	14	12.5	1.2
Oats	56	27.6	14.5	19	11.2	8.9	24	22.0	12.5	13	61.8	19.9
Corn	102	28.5	27.3	44	17.9	32.8	40	31.1	29.4	18	48.7	21.7
Grain Sorghum	16	9.4	1.4	6	6.0	1.5	7	9.1	1.5	13	16.7	1.2
Sorghum forage	52	9.3	4.5	23	5.9	5.7	19	9.2	4.1	10	17.3	4.3
Sudan	2	10.5	2.0	2	10.5	.9	-	-	-	-	*	
Alfalfa	4	14.0	.5	1	10.0	.4	1	10.0	.2	2	15.0	.7
Idle Land	9	8.8	.7	4	4.8	.8	3	11.0	.8	2	13.5	2.2
Cowpeas	14	9.3	1.2	5	4.9	1.0	2	8.5	.4	7	12.6	-
Soybeans	1	2.0	-	1	2.0	.1	-	-	-	-	-	-
Lespedeza Total Annual	2	7.5	.1	1	10.0	•4	-	. ₹	-	1	5.0	.1
Legumes	16	6.0	.9	7	5.2	1.5	3	5.7	.4	6	8.8	1.3
Other Hay crop	29	36.9	10.0	4	7.3	1.2	13	23.5	7.2	12	61.3	18.2
Total Hay	43	28.8	11.6	11	8.4	3.7	18	18.4	7.8	14	58.5	20.3
Garden	78	2.8	2.1	34	1.8	2.6	29	2.5	1.7	15	5.9	2.2
Orchard	5	6.9	.2	1	6.8	.3	2	3.4	.2	2	1.5	.1
Other Crops Total Acres	20	1.0	1.9	-	-	-	12	9.7	2.7	8	10,4	2.0
planted	107	100.9	101.3	48	51.0	102.7	41	103.7	100.4	18	227.3	100.4
Actual Crop Lan	d 107	99.7	100.0	48	49.9	73.5	41	103.4	74.1	18	224.1	74.9
Native Pasture	78	31.2	16.9	33	17.3	17.5	31	32.6	17.7	14	60.9	15.8
Tame Pasture	20	21.2	2.8	5	7.4	1.1	8	2.1	3.0	7	31.0	4.0
Waste Land	44	8.8	2.7	14	3.5	1.5	21	9.1	3.3	9	16.2	2.7
Woods	14	14.8	1.5	8	10.6	2.6	2	13.5	.5	4	24.2	1.8

Continued

Table 4. (Continued) Land Use and Numbers of Livestock in 1936 for 107 Muskogee County According to Size

	: Total Number farms report- ing	107 far :Average :per :farm :(acres)	ms Per- icent	: 0 - :Number :farms :report- ;ing	99 acre :Average :per :farm :(acres)	Per- icent	: 100 :Number :farms :report :ing	- 174 aci :Average :per -:farm :(acres	res :Per- :cent	: 175 :Number :farms :report :ing	Acres and :Averag :per :farm :(acres	d over e: :Per- :cent):
Farmstead Total Acres	57 107	2.6 134.3	4.8 100.0	22 48	1.9 67.8	1.3	22 41	2.7 139.5	1.1	13 18	3.7 299.4	.9 100.0
	:Number :farms :report- :ing :	:Average:No :number :pe -:per :10 :farm :cr : :ac		:Number :farms :report- :ing	:Average :number :per :farm :	ino. iper iloo icrop iacre	Number farms report.	:Average :number -:per :farm :	:No. :per :100 :crop :acres	:Number :farms :report :ing	:Averag :number :per :farm	e:No. :per :100 :crop :acres
Horses and mule All cattle Milk cows Hogs Chickens	s 105 105 105 85 102	3.9 11.4 5.4 7.3 55.6	3.8 11.2 5.3 5.8 53.2	47 47 47 35 44	2.8 4.6 2.5 4.8 40.6	5.6 9.0 4.8 7.1 74.7	41 41 41 35 41	4.1 9.5 4.5 7.9 57.7	3.9 9.2 4.3 6.5 55.9	17 17 17 15 17	6.5 34.9 15.8 11.9 89.4	2.7 14.7 6.7 4.4 37.6

Source: Unpublished data from Agri. Adjustment Planning Project, 1935-36.

The decrease in proportion of land in corn as farms increased in size was taken up by cats and hay. The proportion of land in cats increased from 8.9 to 19.9 percent of the total crop land. Total hay, which was chiefly native meadow, accounted for 20.3 percent of the crop land.

In Wagener County the cropping system is again cotton, corn, cats, and hay crops. Smaller farms have a larger proportion of the land in cotton and a smaller proportion in corn and cats. Wagener County is further north in the prairie lands and has more wheat; of the 55 farms used in this study from the Agricultural Adjustment Planning Project Survey, 16 planted acreages of wheat, for the 55 farms this was 8.6 percent of the crop land.

Considering the total of 55 farms in Wagoner County the proportion of land in farms was 74.8 percent, or about the same in the other, Muskogee, and McIntosh counties.

The average size of farms in Muskogee and Wagoner counties, of 88.8 and 94.0 acres, was smaller than that given for McIntosh County, 96.7. This was due to a smaller number of farms in acreage groups above 260 acres, as is shown by Table 12. As was true with McIntosh County, the greatest number of farms is concentrated to the groups in which the 40, 80, and 120 acre farms are included.

Small farms, with small investment, are what the tenant farmers are working with. Approximately two-thirds of the land and three-fourths of the number of farms are controlled by tenants in McIntosh, Muskogee, and Wagoner counties. Equipment and machinery is not used to any great extent as shown by the investments in machinery; \$182.11 for Muskogee County, \$157.43 for Wagoner County, and \$130.50 for McIntosh County, in 1930. (Table¹³).

Table 5. Land Use and Numbers of Livestock in 1936 for 55 Wagoner County Farms According to Size

an Manada an Anan Kanalan Manada an Anan Anan Anan Anan Anan Anan A	: Tota	al 55 fam	rms	: 0.	- 99 acr	05	: 100 .	- 174 ac	res	: 175	acres a	nd over
	Number	:Average	81	:Number	Average	91	Number	Averag	61	:Number	Avera	ge:
	:farms	:per	:Per-	: farms	sper	:Per-	farms	:per	:Per-	:farms	:per	:Per-
	:report.	·:farm	scent	:report-	-:farm	:cent	report	-:farm	scent	report	-: farm	:cent
	:ing	: (acres)1	ing	: (acres):	ing	: (acres):	ing	: (acre	s):
Cotton	49	27.1	25.5	20	24.4	45.6	20	30.7	27.0	9	24.9	12.2
Wheat	16	28.1	8.6	4	15.5	5.8	5	27.8	6.1	7	35.4	13.8
Oats	35	30.1	20.3	9	10.9	9.2	16	21.6	15.2	10	60.9	33.0
Corn	54	23.6	24.5	20	16.2	30.3	23	24.5	24.7	11	35.0	20.9
Grain Sorghum	17	8.1	2.6	3	5.0	1.4	8	8.4	2.9	6	9.2	3.0
Sorghum Forage	10	4.2	.8	4	3.0	1.1	5	4.1	.9	1	10.0	.5
Sudan	6	3.2	.4	3	2.7	.7	1	.5	.2	2	3.0	.3
Alfalfa	4	7.3	.6	2	7.0	1.3	1	10.0	.4	1	5.0	
Idle Land	10	10.5	2.0	2	5.5	1.0	5	12.2	2.7	3	11.0	1.8
Cowpeas	6	4.2	5.5	4	3.2	1.2	2	6.0	.5	-	-	
Soybeans	-	-		-	- 35		-	-	-	-	-	-
Lespedeza	7	6.1	.8	3	7.3	2.1	4	5.2	2.1	-	-	-
Total Annual												
Legumes	10	6.8	1.3	6	5.8	3.3	4	8.2	1.4	-		17.0
Other Hay Crop	17	33.4	10.9	1	8.0	.7	9	27.3	10.8	7	44.9	17.6
Total Hay	20	32.2	13.2	9	7.1	5.9	13	22.6	12.9	8	40.6	.1
Garden	51	1.3	1.3	18	1.1	1.9	22	1.5	1.5	11	1.1	
Orchard	10	11.6	2.2	2	3.0	.6	5	21.5	4.7	3	.9	103.6
Other Crops	14	6.7	1.8	5	5.8	2.7	7	8.4	2.6	2	3.0	.3
Total acres									5.1			
planted	55	97.3	103.1	21	53.8	105.6	23	100.6	101.5	11	173.6	103.6
Actual crop lan	d 55	94.4	74.9	21	51.0	78.7	23	99.0	78.2	11	167.6	69.3
Native Pasture	38	30.8	16.9	9	14.3	9.4	19	23.1	15.1	10	60.2	22.0
Tame Pasture	4	6.0	.3	2	5.0	.7	1	4.0	.1	1	10.0	.4
Waste Land	29	9.1	3.8	10	8.1	6.0	12	7.8	3.2	7	12.8	3.4
Woods	13	13.2	2.5	6	4.7	2.1	5	11.0	1.9	2	44.0	3.

Continued

Table 5. (Continued) Land Use and Numbers of Livestock in 1936 for 55 Wagoner County Farms According to Size

		: Tota	1 55 far	ms	: 0 -	· 99 acre	S	: 100 -	- 174 act	res	: 175 : Number	Averag	d over
		:farms :report- :ing	:per :farm :(acres)	:Per- :cent	:farms :report- :ing	:per :farm :(acres)	:Per- :cent	farms report-	:per :farm :(acres	:Per- :cent	farms report-	:per :farm :(acres	:Per- :cent):
Farmstead Total acres	8	35 55	3.4 126.1	1.7	14 21	3.0 64.8	3.0	14 23	3.2 126.7	1.5	7 11	4.6 24.2	1.2
		:Number :farms :report- :ing	:Average :number :per :farm	:No. :per :100 :orop :acres	:Number :farms :report- :ing	:Average :number :per :farm	iper iloo icrop iacres	:Number :farms :report- :ing	:Average :number :per :farm	:No. :per :100 :crop	:Number :farms :report :ing	:Averag :number :per :farm :	e:No. :per :100 :crop :acres
Horses and All cattle Milk cows Hogs Chickens	mule	s 55 53 53 39 54	3.4 8.5 4.0 10.6 55.2	3.6 8.6 4.1 8.0 57.4	21 20 20 12 21	4.6 5.4 3.6 4.4 3.8	5.1 10.1 6.6 5.0 75.3	23 22 22 17 5 22	4.7 6.9 3.6 6.4 56.6	3.8 6.6 3.5 4.7 54.7	10 11 11 10 11	4.7 17.3 5.6 25.3 84.5	2.5 10.3 3.4 13.7 50.4

Source: Unpublished data from Agri. Adjustment Planning Project, 1935-36.

DEVELOPMENT IN INDIAN TERRITORY UP TO 1900

Prior to the first report of the United States Consus Bureau on the Indian Territory very little information concerning agricultural organization in Area 9 is available other than from reports of early travelers, missionaries, and officials in the territory.

The area considered in this study was included within the region originally allotted to the Cherokee and Creek Tribes of Indians. Later these land were allotted to the Indians but the right to dispose of the land was restricted until certain regulatory compliances had been effected. When the restrictions were removed and they were permitted to dispose of all the land except the homestead of 40 acres.

When the white men first came to America, they found the Indians growing corn. Among these Indians were the Creeks and Cherokees living in the region of Georgia, Alabama, and the Carolinas at that time. Later when the Cherokees were removed to the Indian Territory in 1828 they still grew corn along with oats and potatoes, and also raised cattle, horses, and hogs.

For some time after removal the Indians were unsettled and dissatisfied but by 1834 the Cherokees were farming the land with some degree of success.

8/ Oklahoma Tax Commission Report to Assessors states that these restrictions could be removed by the legislature, or on unrestricted Indians the restrictions were automatically removed 21 years after the patents were granted.

9/ ".....and having advanced somewhat in the arts and agriculture before (before the removal to the Indian Territory), they are now found to be mostly living well, cultivating their fields of corn and other crops, which they raise with great success." E. E. Dale and J. L. Rader, "Readings in Oklahoma History." p. 219

An early factor that had influence later on the type of farming that developed out of the Indian Territory was the availibility of slaves that were brought from Georgia and Alabama. The Indians were lazy and at first did not like to cultivate the fields, but with the use of the slave's help they had become agriculturists by 1834.

The Indians spent most of their time with the livestock. While a Cherokee child was young his parents or friends would give him a colt or two, or one or two calves to please him or with a view toward future accumulation. The young stock was cared for by the elders and by the child himself. Thus early in life the young Indians started working $\frac{12}{12}$ with livestock.

The Creeks had developed their system of farming by 1837 to the extent that they were having a surplus of farm products to send out to the Nation. At first, due to lack of fish and game, the Indians tilled the soil to furnish the necessities of life. But they soon discovered that the Commissariat at the Fort needed provisions and would take the products from the farm in exchange for things the Indians needed. Even at this early date there was some diversity in farming in the Indian

12/ Dale and Rader. op. cit. pp. 613-614.

^{10/ &}quot;There is searcely a finer country on earth than that now owned by the Creeks; and in North America, certainly no Indian tribe more advanced in the arts and agriculture than they are. It is no uncommon thing to see a Creek with twenty or thirty slaves at work on a plantation, having brought them from a slaving holding country."

^{11/} Foreman Grant, "The Centennial of Fort Gibson." Chronicles of Okla. 1924, Vol. II, p. 120.

Nations. However, corn and rice were the principal crops, while cattle 13/ and hogs were the principal livestock.

Since the lands were held in common much of the farming was done in common. The chiefs would direct the labor which was done by members of the tribe. Each family did its share of the fencing, plowing, planting, and tending; it had its own crops which were scattered over the fields.

Available data are not sufficient to form any conclusions as to the organization of the farms farmed by individuals. However, bits of information by an early historian indicate something of the farm organization. The farms were scattered and often were just clearings in the woods in which patches of crops were growing. An early Creek Indian farm is described as follows:

The trade of the Indians is indicated by estimates made in 1830, that the Creeks produced 50,000 bushels more corn than they needed for their consumption. These Indians sold 1,000 hogs to Illinois drovers in 1846, and also, sold 100,000 bushels of corn, part of which was exported and went to Ireland.

13/ "They furnished large quantities to the Commissariat at Fort Gibson annually and contributed greatly in supplying the late immigrants. They raised also more stock than was necessary for their own use, he said, and carried on a considerable trade with the garrison in grain, stock, vegetables, poultry, eggs, fruits, pigs, lambs, venison, ham, bear-meat, and butter.

"The Creeks were known as corn growing people and some of the principal farmers cribbed as much as five to ten thousand bushels of corn each season." Grant Foreman, "The Five Civilized Tribes", pp. 199-200.

14/ Ibid. pp. 170-171

15/ Ibid. pp. 199 and 200.

Outside of trade with Fort Gibson and boats that came up the river, the Indians were in a state of isolation. They were handicapped by lack of transportation facilities and after bringing in improved machinery by 1854 they were able to produce much more than they could market.

Little has been said of the tenure status of the farmers in the early Indian Nation, and the assumption may well be made that the farms were all owned and operated by the Indians themselves. This was not the case in 1859, however, when there were 1,000 whites in the Cherokee Nation alone. These whites who came into the Nation leased the lands from the Indians, improved the land and farmed it. The Indians were glad to make such arrangements, because they could get the lands improved, and at the same time have an income without working.

A report made by the Commissioner of Indian Affairs, 1859, contains the following estimate for the Cherokee Nation:

21,000	Corn yield	35	bushels	per	acre
4,000	Wheat yields	12	bushels	per	acre
1,000	Oats yield	30	bushels	per	acre
4,000					16/
102,000					
240,500					
20,000					
16,000			8		
5,000					
	21,000 4,000 1,000 4,000 102,000 240,500 20,000 16,000 5,000	21,000 Corn yield 4,000 Wheat yields 1,000 Oats yield 4,000 102,000 240,500 20,000 16,000 5,000	21,000 Corn yield 35 4,000 Wheat yields 12 1,000 Oats yield 30 4,000 102,000 240,500 20,000 16,000 5,000	21,000 Corn yield 35 bushels 4,000 Wheat yields 12 bushels 1,000 Oats yield 30 bushels 4,000 102,000 240,500 20,000 16,000 5,000	21,000 Corn yield 35 bushels per 4,000 Wheat yields 12 bushels per 1,000 Oats yield 30 bushels per 4,000 102,000 240,500 20,000 16,000 5,000

Evidently 4,000 voters in the Cherokee Nation had 4,000 slaves, and there were 1,000 whites who were tenants of the Indians. These people were farming only 102,500 acres of land. However, with the good yields they were able to support the population and have a surplus to sell or

16/ Dale and Rader, p. 271.

trade.

All the information that is available as to the size of farms that existed in the Indian Nation prior to 1900 from which to draw conclusions has been obtainted from reports of travelers through the Nation.

The Commissioner of Indian Affairs reported in 1886 that the size of farms varied according to the owners. The half-breeds, and adopted whites accumulated large tracts of land while the full-bloods were content to farm smaller acreages. The range was estimated to be 50 to 400, or 500, acres for half-breeds in the Cherokee Nation, and five to 150 acres for the full-bloods.

The range was open and the full-bloods were very generous with each other. The individuals who farmed, shared the products of their farms with 18/ those who had need of such goods. During the period 1872 to 1874 two railroads crossed the Creek and Cherokee Nations from east to west, and from west to south. This marked the beginning of a change from pioneer self-sufficing farming to a commercial system.

- 17/ In 1874 Samuel Grayson of the Muskogees gave the following report: "Corn is the principal production of our farms....and the Muscogees have for many years raised a surplus of this staple, bartering the same at different points in the country for merchandize; but during the past winter they had the satisfaction of seeing more considerable quantities shipped south by rail while in the opposite direction have gone cattle and hogs reared by the industry of the Muscogees..... The more enterprising are importing improved stocks of cattle and hogs." Dale and Rader. op. cit. p. 595
- 18/ ".....we pass farm after farm of considerable size from 50 to 400, or 500, acres. In the houses live half-breed Cherokees, adopted citizens of the Cherokee Nation, and occasionally a full-blood.
 "Of the full-bloods: Their fields are small from 5 to 150 acres in the valleys of streams and protected by worm fences.....He has around him a number of hogs which run on the range and supply his meat for the year. He raises potatoes, beans, and other vegetables, enough corn for his own meal and hominy, enough to feed his horses and fatten his hogs, which are for the most part fed on the mast of woods adjacent, and to some extent supply his less provident neighbor in case he runs short, which he is very apt to do if the season be not fair." op. cit. pp. 612-613.

TYPE OF FARMING THAT EXISTED IN 1900

The Twelfth Census of the United States for the year 1900 gives some rather accurate statistics of the Creek and Cherokee Indian Nations. However, the area covered is so broad that specific conclusions are difficult to reach. Yet, these data do show some general facts from which developments into later types of farming may be traced.

Pressure from the white people from both outside and within the Indian Territory was changing conditions generally within the Indian Nations. As reported by the Bureau of Census, the population of the Creek and Cherokee Nations for 1890 and 1900 was:

	White		Ne	1	Indian		
	1900	1890	1900	1890	1	1900	1890
Cherokee	66,951	29,166	9,162	5,127		25,639	22,015
Creek	25,187	3,289	7,520	4,621		7,963	9,999

These data show that within the Cherokee Nation the white population increased 129.6 percent from 1890 to 1900, the negro population increased 78.7 percent while the Indian population increased 16.5

The change was more extreme in the Creek Nation. The white population increased 665.8 percent, the negro population increased 62.7 percent, and the Indian population decreased 20.4 percent.

The tremendous rate of influx of whites leaves little room for wonder that this territory became part of the State of Oklahoma in 1907. At this time the counties were formed and hence county data are available for the study during subsequent years.

The aganization of farms within these areas can be observed from the census data of 1900 which lend themselves to comparison with the data

made available after statehood. The number of farms in the two Indian Nations by size groups were as follows:

Size Distribution of Farms 1900 Creek and Cherokee Nations

	-			CL	ass Int	ervals	1	in Acres								
	:	Inde 3	2°3 2	3-9:	10-19:	20-49	1	50-99	1	100-:	175-1	260-:	500- 999	-:Above :1,000		
Cherokee Creek	,	76 38		479 141	1,309 289	3,777		2,634	-	2,368 1,146	1,181 142	1,156 342	444 168	113 122		

The total number of farms in the Cherokee Nation was 13,537. The average size for the entire number of farms was 134.2 acres. The number of farms in the Creek Nation was 4,240 with an average of 329.2 acres per farm.

The proportion of farms in each size group expressed as a percentage of the total for the Cherokse and Creek Nations in 1900 was:

> Percentage of Farms According to Size 1900 Creek and Cherokee Nations

	Class Intervals in Acres											
	Under	3-9: 1	10-19:	20-49	1	50-99	3	100-: 174 :	175-1	260-: 499 :	500- 999	:Above
Cherokee Creek	•56 •90	3.54 3.33	9.67 6.82	27.90		19 . 46 17 . 10		17 .4 9 27 . 03	8•72 3•35	8.54 8.07	3.28 3.96	.83 2.88

The number of farms is greatest in the 20 to 49 acre group, while the average is 134.2 acres, and 329.2 acres for the Cherokee and Creek Nations in the order given.

The large farms were the result of two factors, chiefly, ownership of the land in common, and the efforts of the white men to obtain large tracts through marriage of Indians, and by leases. Cattlemen who came

20/ Ibid.

^{19/} Twelfth Census of the United States, 1900, Vol. 5, Table 10, p. 79 U. S. D. I., Bur. of Census.

in during the last two decades of the Nineteenth Century were interested in gaining control of large tracts of land so as to be able to care for larger herds.

Farm organization in the Indian Territory constituted a subsistence agriculture of a frontier type with an element of communal distribution. Lack of transportation facilities tended to prohibit the development of a highly specialized type of agriculture.

The Indians were lazy and had been accustomed to obtaining a portion of their food by hunting and fishing. In the Indian Territory, game and fish would not furnish the demands of the Indians and as a result they were forced to till the soil for provision. Lands were held in common generally and if the lands were not held in common the products of the soils were shared in common.

Restrictions on white men in the territory again tended to check development, with the results that the Indians continued to follow the livestock and grain farming because this type of farming would lend itself to frontier conditions of people who were farming only for the provisions on which to subsist.

21/

Tenure Status of Farmers, 1900: The proportion of ownership operators in Oklahoma, Area 9, was roughly, twice as great in 1900 as now. At time the Cherokee and Creek farmers owned one-third of their farms.

Since there were 66,951 whites and 25,639 Indians in the Cherokee Nation, and 25,187 whites in the Creek Nation to 7,963 Indians in 1900, the explanation of the percentage of tenancy at that time is not difficult. The white men had come in as lessors from the Indians and were there under some form of tenancy agreement. Even as late as 1900, 25.3

21/ Ibid.

percent of the farms in the Creek Nation were cash rented:

Tenure Status of Farmers 1900 Creek and Cherokee Nations

		-	1	Percent								
	Owners	:	Part Owners	*	Owners and Tenants	:	Managers	:	Cash Tenant	:	Share Tenants	
Cherokee	33.0		1.0		0.6		0.5		6,5		58.4	
Creek	33.9		1.6		0.2		0.9		25.3		38.1	

The development of farming in the Indian Territory has been discussed somewhat at length in the light of the changes indicated by the limited amount of information at hand.

Data obtained by the Census Bureau in 1900 indicate that the Cherokee Nation was decidedly a livestock and grain producing area. Thirtyfive and three-tenths percent of the improved land was devoted to corn. This large acreage of corn correlates rather closely with the large number of hogs and cattle on hand in the area; 16.5 head of hogs, and 26.1 head of cattle per 100 acres of improved land. Wheat and wild hay were the next largest acreages of crops.

Table		Number	rs of	Livestock	in the)
Che	roke	e and	Creel	Nations	1900	

the local data and the same because of particular the same because of the same because	and the second statement of th	the second standard strends and the second state of the second sta	the set of	the second state of the second state of the second state of the second state of the	Acres 1
Number Livestock	: Total : Number :	: No. per 10 : Acres Impro : Land	0 :: Total : ved:: Number : ::	No. per 100 Acres Improved Land	
Horses	64,338	5.5	27,477	8.5	
Mules	17,177	1.5	4,590	1.5	
All cattle	304,100	26.1	306,548	102.6	
Milk cows	31,004	2.7	8,445	2.8	
Hogs	192,689	16.5	7,056	2.4	
Sheep	5,804	0.5	1,786	0.6	
Chickens	589,788	50.6	163,303	54.6	

Source: Twelfth Census of the United States, U. S. D. C., Bur. Census

Near Fort Gibson, close to the ready market, there was an area that produced Irish potatoes rather extensively. For the entire Cherokee

Table 7 .	Acr	es in Farma	s, Ac	res in	1 11	nproved 1	and, Pr	opoi	rtion
Improved	Land	in Crops,	and	Acres	in	Selected	l Crops	; in	the
		Cherokee	and	Creek	C Ne	ations,			
			190	00					

	t Cherol	kee Nation	t: Cre	ek Nation
	1	:Percentage of	211	Percentage of
	: Acres	simproved land	l:: Acres	:improved land
	1	:in each crop	11	sin each crop
Acres improved land	1,165,061		1,395,83	2
Acres in farms	1,816,719		298.85	58
Proportion improved (percent)	64	.1	2	21.4
Crops				
Corn	411,067	35.3	118,34	0 39.6
Oats	46,651	4.0	1,59	.5
Rye	8	-		1 -
Wheat	185,238	15.9	5,04	5 1.7
Wild hay	202,006	17.3	80,12	26.8
Millet	2,419	.2	1,23	.4
Cotton	58,627	5.0	27,48	54 9.2
Alfalfa	-		31	.8 .1
Tame grass	802	1.0	4	- 2
Grain cut green	2,201	2.0	62	.2
Forage	6,516	6.0	5,18	55 1.7
Potatoes, Irish	3,748	3.0	52	.2
Potatoes, sweet	303	.02	17	.1
Miscellaneous vegetab	les 345	.03	1,07	.4
Sorghum cane	2,432	.2	1,28	.4

Source: United States Census, Vol. V, Table 19, 1900.

Nation 3.0 percent of the improved land was in potatoes.

The total of all crops with pasture, lands, meadows, orchards, and farmsteads made up 64.1 percent of the total land in farms. This was classified by the Census Bureau as improved land.

For the Creek Nation a little variation from the Cherokee Nation is observed. The greatest use of land is for corn with 39.6 percent of the improved land and wild hay with 26.8 percent, which is more easily understood when it is observed that only 21.4 percent of the land in farms was classified as improved land, and that there were 102.6 head of cattle for each 100 acres of improved land.

One other crop that has not been mentioned yet is cotton. The classification of farms and farm values by principal source of income indicates that cotton farming holds a permanent position in the Indian Territory. However, only 5.0 percent of the improved land in the Cherokee Nation, and 9.2 percent in the Creek Nation was devoted to cotton.

Data presented in Table 8 are for the entire Indian Territory and may not be used to draw definite conclusions on early farm organization of Area 9, unless they are interpreted with the knowledge that the Indian Territory of 1900 extended further south and west than even the Creek and Cherokee Nations. Nevertheless, some useful comparisons with later developments may well be made from these data.

Farm Values: Data on investments in the Cherokee and Creek Nations 1900, indicates that land was not a limiting factor in 1900, especially in the Indian Territory where restrictions had been placed on the transfer of the land, and where up to this time the population within the Territory was not great enough to raise the value of land by the demand for its products.

Table 8 . Percentage of the Number of Farms, Acres in Farms, Value of Specified Classes of Farm Property, Value of Products, Expenditures for Labor for Indian Territory Farms Classified According to Tenure and Principal Source of Income in 1900

Item	: C : Own- : ers	lassi :Part :own-	fication Owners and ter ants	on by ' s:Mana agers	Tenure -:Cash: :ten-: :ants:	Share ten-	:: Cla :: Cla :: Hay :: and ::grain	ssifica : Vege- :tables	tion b	y Princ :Live- s:stock	ipal S Dairy	Cot- iton	of I Sug-	ncome : :Misc.
Mumb an Passa	07 0		~ *	0.5	10 5		70.0		0.7	99.4	0.0	70 0	0.1	7 4
Number acres in farms	25.1	8.2	0.4	15.1	23.4	27.8	28.9	0.4	0.2	53.6	0.5	14.5	0.1	1.8
Total value of farm property	28.0	6.5	0.4	11.3	23.5	30.3	25.7	0.6	0.2	53.9	0.9	17.2	0.1	1.4
Value of farm and improvements	26.7	5.5	0.3	10.6	22.5	34.4	31.5	0.7	0.3	45.0	0.6	20.1	0.1	1.7
Value of buildings	41.5	5 3.3	0.6	3.7	15.5	35.4	34.6	1.0	0.6	36.8	1.5	23.1	0.1	2.2
Value of implements and machinery	28.3	2.5	0.4	1.6	21.0	46.2	39.3	0.9	0.3	30.1	0.9	26.4	-	2.0
Value of livestock	26.8	8.5	0.4	14.3	26.1	23.9	17.2	0.3	0.2	67.6	1.0	12.6		1.1
Value of products	22.8	5.9	0.5	9.7	22.1	39.0	26.7	0.9	0.3	42.7	0.7	27.0	0.1	1.5
Amount expended for labor	28.9	6.5	0.6	7.6	22.6	33.8	35.2	1.7	0.4	43.5	0.6	17,4	0.1	1.0

Source: Twelfth Census of United States, 1900, Bureau of Census, Vol. V, T. 18, pp. 254-255.

The value of land and buildings per farm in the Cherokee Nation in 1900 was \$903.00, and in the Creek Nation \$1,624.00 per farm. Implements and machinery were valued at \$96.34 per farm in the Cherokee Nation, and \$80.41 in the Creek Nation.

The value of land ambuildings in McIntosh, Muskogee, and Wagoner counties, were \$1,607.00, \$2,043.00, and \$4,252.00, respectively, in 1935. (Table 9). But the values for 1930 were McIntosh County \$130.50, Muskogee County \$182.11, and Wagoner County \$157.43 per farm.

> Table 9. Number of Farms, Farms with Buildings Acres in Farms, and Values for Selected Items in the Cherokee and Creek Indian Nations in 1900

Total		Value		B 1 - 3		Contraction of the owner with the
and the second	-		•	rotal	: Ve	alue
and the second se		Per Farm	1		Per	r Farm
13,53	7			4,240		
13,36	7			4,159		
,816,719	Э		1	,395,832		
,165,06	1			298,858		
,422,670	D	\$696	\$5	,944,940	\$	1,402
,802,480	0	207		943,400		222
1.						
,304,130	C	96.34		340,930		80.4
.560.802	2	706-27	8	945 060		1 944 . 5
	,165,06: ,422,670 ,802,480 ,304,130	,165,061 ,422,670 ,802,480 ,304,130	,165,061 ,422,670 \$696 ,802,480 207 ,304,130 96.34 560,802 706,27	,165,061 ,422,670 \$696 \$5, ,802,480 207 ,304,130 96.34	.,165,061 298,858 .,422,670 \$696 .802,480 207 .304,130 96.34 .560,802 706,27 .304,00	.,165,061 298,858 .,422,670 \$696 \$5,944,940 \$3 .,802,480 207 943,400 .,304,130 96.34 340,930 .,560,802 706,27 8,245,060

Source: Twelfth Census of the United States: U. S. D. C., Bur. of Census, 1900, Vol. 5.

	1	8	an der in der der der der der	1		1	ter son an	1		10.0
	: 1910	1	1920	1	1925	:	1930	ŧ	1935	
MeIntosh County	2							2		
Total numbers	100.0		100.0		100.0		100.0		100.0	
Owners	19.5		23.9		22.1		14.2		15.9	
Part Owners	3.7		8.6		3.9		6.7		5.7	
Nanagers	.1		.2		.1		.5		.1	
Tenants	76.7		67.4		74.0		78.6		78.3	
Cash Tenants	9.0		4.5		2.3		2.3		-	
Other Tenants	67.6		62.9		71.7		76.3		-	
Muskegee County										
Total Numbers	100.0		100.0		100.0		100.0		100.0	
Owners	26.3	÷	28.9		25.0		17.7		18.9	
Part Owners	6.9		11.0		8.4		10.3		9.2	
Managers	.4		.5		.2		.4		.2	
Tenants	66.4		59.6		66.4		71.5		71.7	
Cash Tenants	8.2		6.1		4.4		5.5			
Other Tenants	58.2		53.5		62.0		66.0		-	
Wagoner County										
Total Numbers	100.0		100.0		100.0		100.0		100.0	
Owners	17.5		21.2		24.8		14.6		15.7	
Part Owners	4.1		10.2		4.6		8.1		6.5	
Managers	.3		.2		.1		.3		.4	
Tenants	78.0		68.4		70.4		77.0		77.5	
Cash Tenants	13.5		5.5		2.5		3.9		-	
Other Tenants	64.5		62.9		67.9		73.1			

Table 10. Percentage Number of Farmers in Each Tenure Group Were of All Farmers According to Counties, Census Years 1910 to 1935

Source: United States Census, Vol. I, 1935; Vol. II, Part II, 1930; 14th Census 1920; Vol. VII, 1910.

en og and helde in de un 2000 Miller en sear a	1	1		:		1		8	
	: 1910	1	1920	1	1925		1930	:	1935
McIntosh County	<u>r</u>								
Total Numbers	100.0		100.0		100.0		100.0		100.0
Owners	29.9		25.1		24.2		13.2		15.7
Part Owners	-		11.8		6.2		10.8		10.0
Managers	.2		.6		.2		1.6		.2
Tenants	69.9		62.5		69.3		74.4		73.7
Cash Tenants	-		5.1		2.5		2.4		-
Other Tenants	-		57.4		66.8		72.0		-
Muskogee County	Ľ								
Total Numbers	100.0		100.0		100.0		100.0		100.0
Owners	44.4		29.9		25.0		14.9		17.5
Part Owners	-		16.6		12.3		14.9		14.3
Managers	.6		1.5		.7		1.9		.7
Tenants	55.0		52.0		62.0		68.2		67.6
Cash Tenants	-		6.1		4.1		5.4		-
Other Tenants	-		45.9		57.9		62.8		-
Wagoner County									
Total Numbers	100.0		100.0		100.0		100.0		100.0
Owners	32.4		21.7		25.8		14.6		15.7
Part Owners	-		19.5		9.5		11.2		11.8
Managers	1.0		2.6		4.4		3.1		5.1
Tenants	66.6		56.2		60.3		68.1		67.4
Cash Tenants	-		5.5		3.5		48.0		
Other Tenants	-		50.7		56.8		63.3		-

Table 11. Percentage Land Operated by Farmers in Each Group Was of Total Land in Counties, Census Years 1910 to 1935

Source: United States Census, Vol. I, 1935; Vol. II, Part II, 1930; 14th Census 1920; Vol. VII, 1910. increased, and the percentage of land in crops increased. Nov 9 193853. results of an area's being settled. After settlement of the area additional people took lands as tenants with the hopes that they would be able to buy farms. Then tenancy increased.

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Data on part owners are not available for 1910, but in 1920 the proportion of the land operated by part owners was greater than that controlled by other tenure groups. High land values of the war period practically prohibited the purchase of additional lands to increase the size of the farm unit, as a result the farmers rented adjoining lands to increase the farm business to a more economical size.

<u>Size of Farms</u>: The trend in number of farms was upward 1910 to 1935. At the same time the percentage of land in farms has varied up and down. This has resulted in variations in the size of farms from census year to census year. (Table 12).

As would be expected in Area 9, the farms as a rule are small. This is partly to be attributed to the fact that restricting Indians from disposing of the homestead of 40 acres for several years has tended to increase the number of 40 acre farms. Slightly fewer than one-third of the farms are in the group 20 to 49 acres. (Table 12). The next size group, 50 to 99 acres, the group which includes the 80 acre farms, has slightly more than one-third of the farms. The group 100 to 174, which includes the 120 to 160 acre farms, has roughly 22 percent of the farms.

Occasionally there are found large meadows or large farms owned by one operator on the prairie lands and in the rough lands often larger acreages will be held by one operator for grazing purposes.

The general rule, especially along the creeks, rivers, and even on the rolling lands as indicated by the average value of equipment and machinery used in the Creek and Cherokee Nations in 1900, is for one

	Number	Average	11		1.1								
	11 erms	18129	Thad on	. 3	10-	. 20-	1855 1	100-	11 acre	. 260	. 500-	Abore	direct of the
	1	<u>.</u>	: 3	191	19	: 49	: 99	: 174	: 259	: 499	: 999	1	
MeIntosh	County												
1910	2,785	84.3	.14	1.40	3.09	33.14	34.00	22.19	3.73	1.94	.32	.04	
1920	3,449	88.1	.06	1.10	2.00	32.85	35.14	22.12	3.91	2.23	.41	.17	
1925	4,422	78.7	-	.85	3.27	35.39	35.39	20.11	3.33	1.55	.12	-	
1930	3,517	90.1	.60	1.99	4.75	25.56	35.94	23.68	4.61	2.33	.43	.11	
1935	3,410	96.7	-	1.38	2.55	26,01	36,60	25,48	4.52	2.82	.50	.15	
Muskogee	County												
1910	3,192	100.5	.06	1.88	5.11	29.14	33.21	20.46	4.57	4.07	1.03	.47	
1920	3,531	98.5	.11	1.08	3.71	29.34	32.31	21.75	6.32	4.33	.85	.20	
1925	3,958	78.8	.03	3.06	6.14	31.94	34.66	17.91	3.94	1.89	.30	.13	
1930	4,487	86.5	1.25	3.08	4.99	27.93	33.01	21.26	5.10	2.70	.58	.11	
1935	4,480	88.8	.18	4.58	6.23	25.87	32.63	21.81	5.20	2.90	.40	.20	
Wagoner													
1910	2,713	99.7	.15	1.18	4.64	25.72	25.65	23.22	5.01	3.24	.81	.37	
1920	2,453	114.8	.04	1.39	3.06	29.76	26.46	24.62	7.26	5.75	1.22	.45	
1925	2,935	89.9	-	3.71	6.13	30.66	30.70	21.06	4.40	2.46	.58	.31	
1930	3.154	91.8	.10	2.66	4.60	32.05	29.84	21.94	5.39	2.73	.44	.25	
1935	3,252	94.0	.03	5.14	6.98	28.94	27.64	22.26	4.98	3.04	.65	.34	

Table 12. Percentage of Total McIntosh, Muskogee, and Wagoner County Farms in Each Size Group for Census Years 1910 to 1935

Source: United States Census, Vol. I 1935; Vol. II, Part II, 1930; 14th Census 1920; Vol. VII, 1910.

operator to control a small farm devoted to cotton and corn chiefly. Machinery and equipment per farm was valued at \$80.41 and \$96.30 in these two nations respectively. Machinery and equipment per farm increased in value until 1920, then reached a low for value per farm in 1925, but by 1930 had increased again to about 60 to 80 percent of the 1920 value.

Corn and other grains grown chiefly as feed for livestock were the principal crops in the Indian Nation. Therefore, heavy investments were unnecessary. But the period 1910 to 1920, was a period of expansion in agriculture to meet the war-time demand and as a result of price inflation and high prices for feed and food products. Good prices paid the farmers well, and some money was spent for equipment to make more crops; their implements and machinery investments increased accordingly.

After the war, prices slumped. Farmers had bought high priced equipment and were now paying for it with low priced products. Consequently a decrease of more than \$100,00 per farm in equipment and machinery occurred from 1920 to 1935.

The machinery bought in 1920 would not last always, and, too, the recovery and good times, 1927 and 1929, encouraged buying of farming equipment. Again the 1930 census report showed an increase in machinery and equipment values per farm in Muskogee, McIntosh, and Wagoner counties. Possibly the shift to wheat in 1920 had something to do with increased equipment investment in 1920.

Land and building values increased to a peak in 1925 in Muskogee, and McIntosh counties and continued to increase steadily in Wagoner County. (Table 13). Probably the increase in size of farms accounts for the per farm value increase. According to the 1930 Census, the heaviest investments per farm were in crop specialty farms, animal specialty farms, and dairy farms north in order. However, the greatest

DEVELOPMENT OF TYPES OF FARMING 1900 TO 1935

The development of farming in the Indian Territory up to the first Census report on the Indian Territory was traced in an early section. This section will be devoted to the changes that have occurred from 1900 to the present time.

Data are available to trace the changes that have occurred in the tenure status of farmers, both by number of farms, and by acres operated by each tenure group. (Tables 10 and 11).

The fact that the percentage of ownership has shown a net decrease, both in numbers and in acres controlled from 1910 to 1935, is pertinent at the present time when so much is being said in regard to the tenancy problem. Beginning with 1910 the average acreage operated by owners for McIntosh, Muskogee, and Wagoner counties was, roughly, about one-third of the total farm land.

The trend in ownership of ferms was upward from 1910 to 1920, and then an actual decrease occurred from 1920 to 1930, but there was an increase again to 1935. The increase, however, was not as great proportionally as the increase in number of farms or tenant operated farms, hence, the percentage of farms operated by tenants was downward from 1920 to 1930. From 1930 to 1935 there was an increase in percentage of farms operated by owners.

Type-of-farming Area 9 in Eastern Oklahoma was opened to development after 1907. Thenceforth the development was the result of economic forces unhampered as they had been by restrictions on the Indian lands.

As pointed out above, the owner operator tenure of farms in Area 9 was, roughly, one-third of the number of farms. The country was new and the lands just being opened gave good yields. But as population increased, the number of farms increased, the percentage of land in farms

	-	an tain alain katalog k										a di ta banda a da ana
An in the second se	:	1900	:	1910	:	1920	1	1925	1	1930	1	1935
reek Nation												
Value land and buildings		1,625										
Value implements and machinery	7	80.41										
cherokee Nation												
Value land and buildings		903										
Value implements and machinery	r	96.34										
cIntosh County												
Value land and buildings				1,748		4,485	3	,285	2	,571		1,607
Value implements and machinery	r			70.06		240.37		143.73		130.50		1/
hiskogee County												
Value land and buildings				3,503		6,181	3	,953	3	,610		2,043
Value implements and machinery	7			93.73		285,61		170.44		182.11		1
lagoner County												
Value land and buildings				2,713		2,453	2	,935	3	,154		3,252
Value implements and machinery	r			84.42		313.65		111.69		157.43		1/

Table 13. Value of Land and Buildings, and Implements and Machinery per Farm for Creek and Cherokee Nations 1900, and Muskogee, McIntosh, Wagoner Counties, Census Years 1910-1935

Source: United States Census, Vol. I, 1935; Vol. II, Part II, 1930; 14th Census 1920; Vol. VII, 1910; 12th Census 1900.

1/ Not available.

per acre value was on crop specialty and poultry farms in Wagoner County.

McIntosh County had the lowest average value per acre, Wagoner County next, and Muskogee County highest for land and buildings in 1930. These data are not available for 1935.

Land Use: Land use shows three definite movements in Area 9 from 1930 to 1935. (Table 14).

Increase in population and expansion of agriculture from 1900 to 1930 resulted in more intensive use of agricultural land in Area 9. (Table 14). The percentage of land in farms increased from 1910 to 1920. But there was a reaction to follow the war which resulted in a decrease in farms, even below the 1910 figures for McIntosh, Muskogee, and Wagoner counties. During the war, cry for feed and food products brought land into use that was later abandoned as being unprofitable.

The increase in land in farms from 1930 to 1935 was not the result of good prices for this period but was in large measure the result of the Great Depression. Industrial activity was reduced to a minimum and people out of jobs turned to the farms for something to carry them until they could go to work again. This was a back to the farm movement resulting from lack of better alternative opportunities.

Yet there is another tendency that is noticed from the table. The percentage of farm land in crops increased to 1920, and then decreased to 1935. The influence of the governmental regulations is, as yet, difficult to measure, and lack of sufficient data makes that analysis impossible here.

<u>Cropping Systems</u>: The area considered in this study has the natural factors favorable enough to grow practically any crop that is grown in Oklahoma. Yet, the area is characterized by a rather definite system of farming.

i i 1910 i 1920 i 1925 i 1930 i <u>MeIntosh County</u> Percent of land in farms 55.5 67.0 59.4 69.9 Percent of farm land im- proved or in crops 64.9 73.7 70.4 63.9 <u>Muskogee County</u>	102 Contractor of the
MeIntosh County MeIntosh County Percent of land in farms 55.5 67.0 59.4 69.9 Percent of farm land im- proved or in crops 64.9 73.7 70.4 63.9 Muskogee County	1085
MeIntosh County Percent of land in farms 55.5 67.0 59.4 69.9 Percent of farm land im- proved or in crops 64.9 73.7 70.4 63.9 <u>Muskogee County</u>	1900
Percent of land in farms 55.5 67.0 59.4 69.9 Percent of farm land im- proved or in crops 64.9 73.7 70.4 63.9 <u>Muskogee County</u>	
proved or in crops 64.9 73.7 70.4 63.9 Muskogee County	72.8
Muskogee County	75.3
Percent of land in farms 61.6 66.8 59.9 74.5	76.4
proved or in crops 67.8 74.9 70.1 67.5	46.9
Wagoner County	
Percent of land in farms 77.5 80.7 73.0 80.1	84.6
proved or in crops 73.8 73.0 66.2 64.8	60.9

Table 14. Percentage of Land in Farms; Percentage of Farm Land Improved 1910 and 1920, and Percentage of Farm Land in Crops 1925, 1930, and 1935

Source: United States Census, Vol. I, 1935; Vol. II, Part II, 1930; 14th Census 1920; Vol. VII, 1910.

Contraction Contraction of the	1		8	1	: Sor	ghum	:	Oats	-	Barle	y:	1 1			*Vegetables
Counties	:	Cot-	:	1	:For-	1	1	:Un-	******	and		Alfalfa:	Irish	:Sweet	for
	1	ton	:Wheat	: Cor	n:age	:Grain	:Thrash	ed:thre	she	d:Rye	: Hay	1 1	potatoe	s:potatoes	sale
1909															
McIntosh	2	27.5	.1	51.8	1/	.4		3.0	8	1/	4.1	1/	.3	.1	•4
Muskogee	1	12.9	1/	38.9	.2	.5		3.2		T/	9.3	51	1.8	.1	.4
Wagoner	1	4.4	.5	37.1	<u>⊥</u> ∕	<u>1</u> /		2.4		Ī⁄	7.5	1/	.6	1/	•4
1 91 9															
McIntosh	-	34.3	2.0	25.4	1.4	.1	1	6.1		.1	5.5	.3	.1	.1	1/
Muskogee	2	24.1	5.6	18.7	1.8	.2	2	3.8		.1	11.7	1.1	.8	.2	.1
Wagoner	1	19.6	16.5	17.1	1.5	.3	2	6.4		.2	8.8	1.0	.3	.1	Ľ∕
1924															
MeIntosh	4	46.2	.3	31.3	1.8	•4	7.0	1.	.7	1/	3.9	.3	.2	.1	.1
Muskogee	4	45.0	1.1	26.2	1.5	.7	10.5	1.	5	5	8.3	.7	1.4	.1	.3
Wagoner		33.5	3.6	25.3	1.2	.8	11.5	1.	.9	.1	10.3	•4	.4	.1	.1
1929															
Mc Intosh	-	39.7	.1	35.5	.7	.6	3.1	1.	4	1/	3.4	.2	•4	.1	.1
Muskogee	-	36.9	.7	32.0	.9	.8	5.3	1.	.5	1/	8.6	.6	2.1	.2	.3
Wagoner	5	35.4	2.0	31.0	.7	1.0	7.5	1.	.3	Ĭ⁄	7.2	.4	.7	.1	.1
1934															
McIntosh	:	21.0	1/	22.8	2.2	1.0	2.6	1.	.3	.4	6.8	.2	.3	.1	.2
Muskogee	-	37.5	.9	30.7	4.6	1.9	8.8	2.	.8	.1	19.4	1.8	1.7	.3	.4
Wagoner	-	22.9	1.3	19.8	.6	1.9	11.4	1.	.6	1/	15.0	1.0	1.3	.1	.1

Table 15 Proportion of Land in Selected Crops for Census Years 1909 to 1934 in McIntosh, Muskogee, and Wagoner Counties

Source: United States Census, Vol. I, 1935; Vol. II, 1930; Part II Southern States, 1925; 14th Census 1920; Vol. VII, 1910.

 $\underline{1}$ Less than one tenth percent.

We have seen that in early stages of development the Indians were corn growers and livestock raisers.

As the country became more settled and other crops were brought in, corn still was a crop that was needed for feed and food, and at the same time it fitted in well with the other crops, therefore, it continued to be one of the major crops.

For example on a corn and cotton farm in Eastern Oklahoma, the corn is planted from March 1 to March 20. The corn is then up and cultivated once before cotton is planted, about the middle of April. The corn is cultivated again and then cotton worked out. In this way the two crops complement each other in the use of labor and equipment; as the same equipment is used to cultivate both cotton and corn.

About 1907 alfalfa was introduced into Eastern Oklahoma and is still grown to some extent in the bottom lands. Muskogee County still produces alfalfa; in 1935 there was 1.8 percent of the crop land in this crop, Wagoner County reached the peak acreage in 1919 with 2,044 acres.

Alfalfa is a crop that grows best on the fertile bottom lands. It fits in well with the cotton and corn system of farming because it is seldom ever ready to harvest until the cotton has been worked out and corn "laid by".

Oats fit into the cropping system well, because oats are sown in either fall or spring when the work is not in conflict with other farm operations. However, the harvest of oats comes about the same time that cotton needs to be hoed in that section of the State.

Grain sorghums fit into the farming operations because grain sorghums will do very well if planted any time during the spring.

Potatoes were at one time one of the principal crops in the vicinity of Fort Gibson, but due to lack of markets potatoes are not extensively grown in that area. Other vegetable crops are planted in small patches with the exception of an occasional truck farm. The 1930 Census listed four farms as truck farms in Muskogee, McIntosh, and Wagoner counties.

Thus in the main, the type of farming that exists in Area 9 is based on one major source of income, more generally cotton, and then corn is grown to feed the livestock which consists of 2.4 to 2.3 head of horses per 100 acres of crop land in 1935; 2.5 to 2.8 head of mules; and 12.3 to 13.5 head of cattle; 7.3 to 6.1 head of milk cows, and about 60 to 65 head of chickens per 100 acres of crop land in 1935, according to the 1935 Census of Agriculture. (Table ¹⁶). The 1930 Census listed 53 animal specialty farms for McIntosh County 66 for Muskogee County and 54 in Wagoner County. For these animal specialty farms the number of head of livestock per farm averaged approximately 26 head per farm more than the average number of all farms.

Number of livestock follow rather regular cycles, yet the cyclical movement of livestock numbers influences the farm organization at the particular time.

There is one development that is obvious. From 1910 to 1935 the trend in horse numbers was downward. (Table ¹⁶). However, from a relatively high point 1910 the number of cattle increased to a peak in the early twenties, while the number of head of cattle per 100 acres crop land decreased for Area 9, as shown in Table ¹⁶). This is probably due to the increase in acres in crop land for the same period. The low figures for 1925 coincide with the cycle of numbers; and again the increase in number of head of all cattle per 100 acres of crop land for 1935 is with the up swing of the cycle.

The trend in hog numbers was up to a peak in the years 1910 to 1920, thus showing relatively large numbers of hogs per 100 acres crop land in

	1			1	:
	: 1910	: 1920	: 1925	: 1930	: 1935
McIntosh Coun	ty				
Horses	4.6	3.5	3.5	2.7	2.3
Mules	2.0	2.8	3.5	3.5	2.9
All cattle	11.1	8.7	6.8	5.9	12.3
Milk cows	3.8	2.9	2.5	2.9	6.1
Hogs	11.1	10.0	7.1	7.8	1.3
Sheep	-	.05	.1	-	.5
Chickens	57.1	60.5	74.2	67.4	60.4
Muskogee Coun	ty				
Horses	4.3	3.8	3.8	2.9	2.4
Mules	2.1	2.5	3.4	3.2	2.8
All cattle	14.9	11.3	7.4	7.7	13.5
Milk cows	4.0	5.2	2.5	3.5	7.3
Hogs	10.0	10.1	6.3	7.3	6.6
Sheep	.1	.2	.1	-	-
Chickens	48.9	60.3	78.2	65.5	63.2
Wagoner Count	<u>y</u>				
Horses	3.5	3.7	3.7	2.9	2.4
Mules	1.9	2.2	3.1	3.1	2.5
All cattle	12.9	8.6	7.7	7.5	13.2
ilk cows	2.4	2.0	2.2	3.2	6.9
logs	9.6	8.7	6.6	6.6	6.4
Sheep	-	.1	.1	.3	.3
Chickens	47.5	54.2	78.5	77.8	65.9

Table 16. Number of Livestock Per 100 Acres Crop Land in McIntosh, Muskogee, and Wagoner Counties for Census Years 1910 to 1935

Source: United States Census, Vol. I, 1935; Vol. II, Part II, 1930; 14th Census 1920; Vol. VII, 1910. Area 9 for these years. The decrease in numbers of hogs per 100 acres of crop land after 1920 is a close correlation with the downward trend in hog numbers of this period.

The decrease in hog numbers per 100 acres crop land (Table 16), corresponds relatively closely with the decrease in proportion of crop land in corn for census years. (Table 15).

The movement of the cycle of hog and cattle numbers in response to price changes is beyond the scope of this problem. However, to the extent price changes cause changes in the number of livestock sufficient to influence the acreages of crops it must be recognized in this study.

PROBABLE FUTURE DEVELOPMENT

Future development in farming types in Area 9 will continue during the next decade very largely in the same general direction as has been described in this study. That is, of course, barring too much interference by regulation and restriction from the government. However, governmental regulation appears now to be a factor that must be recognized in making any forecast of the future. But it is also true that to be successful and continue any program must be in accord with the natural advantages of any area. Therefore, it is the opinion of the writer that regulations will not alter materially the type of farming that has developed under free operation of economic forces.

As has been stated by farmers themselves in Eastern Oklahoma "they can pay more taxes, debts, and operating expenses with cotton than any other crop." Which seems to dictate that cotton will continue to be the chief cash crop for some time; because it appears unlikely that the entire distribution and marketing structure can be changed.

Emphasis is being placed more and more on conservation of the natural resources, especially the soil. Such emphasis is slow to show results because of the fact that the agricultural plant must pay its way before very much effort can be directed toward conservation. Low prices, mobility of tenants, and the general low standards that exist already are forces that tend to minimize deviation from the general trend in farming development. Under present conditions there is general agreement that governmental regulation to be continued must be subsidized.

Tenancy as an institution is not an evil as long as the propertion of tenancy is not too great. Just what would constitute tenancy

out of proportion to what the land would support is questionable. Yet, under present price and yield conditions of Eastern Oklahoma, the land is not desirable for investment purposes, nor is the income sufficient to support absentee ownership; therefore, it appears quite likely that the proportion of owners will continue to increase or at least remain 22/

Natural conditions in Area 9 favor cotton production, yet, not to the extent that mechanization of operation is possible. Thus it appears quite likely that the size of farms will remain relatively small. An opposing force has been pointed out already. Loss of fertility and decrease in yields per acre, along with lower prices will necessarily mean larger units to pay the operating expenses and support a family. And in view of these developments it is the opinion of the writer that the average size of farms will remain about the present acreage during the next decade, possibly increase slightly.

There will possibly be an increase in the number of farms in the larger size groups, as a result of combination of sub-marginal farms into livestock farms with greater acreages farmed less intensively. But this will be offset by further breaking down of the better lands as sons of present operators marry and start farming.

Specialized farming, such as dairy production, truck farming, poultry raising has since 1920 received encouragement. In 1936, 25.8 carlots of potatoes, and 14 of spinach were shipped out of Muskogee County, and four carlots of potatoes were shipped out of Wagoner

^{22/} Peter Nelson, Land Tenure Problems in Oklahoma. Current Farm Economics, Okla. Agri. Exper. Sta., Stillwater, Oklahoma. Vol. 10, No. 4, Aug. 1937.

crease very much proportionally within the next decade. spinach was from specialized farms. it will not be so surprising if the number of such farms does not inof this type of farming is limited by proximity to markets. small acreages on a musber of farms, rather than from potato farms. County. 18 The potatoes, however, were concentrated into carlots from But the extent of the development Therefore, The

ing not out as farmers now very largely will follow the same system of farmwhich he was reared to do. young man starting out for himself will tend to do very largely that be measured statistically, yet it remains fairly certain that a that was used on the home farm. The influence of psychology and education is something that can-Thus in Area 9, the young man who start

year crop acreages will increase, especially sorghums. an increase in number of livestock it seems quite likely that woods pasture, he will ordinarily try to have his farm organized in the place and six to 16 head of cattle out in the free range, or in a himself. and with irregular patches of cotton and corn which are rotated from legune crops, grain sorghums, melons, and such minor crops. that way. 8 Þ boy from a farm of 50 to 80 acres, farmed by one or two year will continue to follow that system when hefarms If he is accustomed to having about 60 to 70 chickens around Small patches around the place will be planted to potatoes, But with For feed teams,

3 U. S. D. A., U. S. D. A., B. A. E. Carlot Shipments of Fruits and Vegetables from Stations in the United States, 1936.

22 The writer spent a number of years in Eastern Oklahoma and has had actual experience in grading and shipping potatoes this and adjoining areas. from

This is a tendency, but just how strong it is in influencing the type of farming of an area cannot be measured. The opinion of the writer is that the next decade will see very little change in the type of farming of Area 9, other than those pointed out. Unless of course, the government through subsidy changes the type of farming there, but this appears quite unlikely.

One other development possibly will be noticed in the future; and that is with all the propaganda and educational campaign to practice conservation; there will likely be a tendency for acres in legumes to show some increase.

In conclusion it might be said that natural factors of Area 9 are paramount in determing the type of farming. Rainfall in the carly spring tends to limit the size of crop acreage one man can successfully handle. This is especially true of cotton.

As was pointed out in the introduction the topography for the most part is broken by streams and even the prairie lands are rolling, which operates to limit large scale mechanized farming. Thus the production of crops will be confined to relatively small farms.

:	1	10 m	1	: Sor	ghum	0	ats	:Bar-	-1	1	1	1 1	1.1.1
ounties:	Cotton :	Wheat	: Corn	: For-	Grain	Thrash-	: Un-	ley	1	: Alf-	Irish	:Sweet:Veg	etable
:	:		:	: age	:	ed	: thrash	-:and	: Hay	: alfa	pota-	:pota-:for	sale
	1		1	1		L	red	:Rye	1	1	toes	toes :	
1909											14		
cIntosh	41,934	94	72,212	22	584	4,6	02 1/	15	6,241	43	455	78	606
luskogee	28,018	106	84,535	348	1,125	6,9	83 -	2	20,277	303	3,883	165	907
lagoner	28,705	930	73,952	91	80	4,7	71	22	14,973	70	1,126	71	828
1919													
l eIntosh	76.834	4.583	56.978	3.17	6 271	36.1	23 1/	285	12,207	611	231	262	37
luskogee	62,656	14.534	48.729	4.73	6 511	61.8	72	277	30.515	2.871	2.017	606	284
Vagoner	40,278	33,821	35,133	3,01	5 588	54,1	70	510	17,991	2,044	530	150	32
1924													1
McIntosh	87,589	506	59,356	3,477	740	13,204	3,283	20	7,459	521	312	116	131
luskogee	98,535	2,317	57,337	3,224	1,589	22,985	3,321	202	18,058	1,558	3,107	283	673
lagoner	58,530	6,211	44,251	2,012	1,334	20,099	3,254	98	18,073	775	714	111	159
1929					*								
le Intosh	80,236	173	71,931	1,336	1,209	6,217	2,884	17	6,849	345	730	260	212
luskogee	96,557	1,746	83,780	2,392	2,087	13,787	3,953	9	22,587	1,698	5,616	574	724
Vagoner	66,331	3,792	58,144	1,400	1,794	14,099	2,471	3	13,539	752	1,374	197	169
1934													
le Intosh	52,181	83	56,739	5,400	2,501	6,538	3,327	954	16,916	579	845	284	386
luskogee	70,004	1,734	57,339	8,566	3,462	16,504	5,178	130	36,283	3,326	3,239	469	724
Vagoner	42,607	2,500	36,843	1,099	3,572	21,138	2,998	75	27,862	1,770	2,428	262	243

49.

Table 17. Acres in Each of Selected Crops for Census Years 1909 to 1934 for McIntosh, Muskogee, and Wagoner Counties, Oklahoma

and the second second second second	1	1	1	1	1
	: 1910	: 1920	: 1925	: 1930	: 1935
McIntosh County	<u>r</u>				
Total Farm Land	234,887	303,754	269,301	136,712	329,907
Owners	70,320	76,298	65,273	41,764	51,956
Part Owners		35,829	16,629	34,200	33,058
Managers	393	1,673	660	4,999	1,811
Tenants	164,174	189,954	186,739	235,749	243,082
Cash Tenants	-	15,395	6,730	7,684	-
Other Tenants	-	174,559	180,009	228,065	-
Muskogee Count	Y				
Total Farm Land	320,891	347,884	312,078	387,929	398,045
Owners	142,319	104,143	77,913	57,876	69,465
Part Owners	-	57,701	38,411	57,825	56,772
Managers	1,952	5,158	2,194	7,528	2,678
Tenants	176,620	180,882	193,560	264,700	269,130
Cash Tenants	-	21,207	12,732	20,926	-
Other Tenants	-	159,675	180,828	243,774	-
Wagoner County					
Total Farm Land	270,471	281,566	263,788	298,491	305,756
Owners	87,816	61,153	67,965	43,640	47,993
Part Owners	-	54,821	25,052	33,434	36,124
Managers	2,610	7,212	11,560	9,228	15,681
Tenants	180,045	158,380	159,211	203,182	205,958
Cash Tenants	-	15,659	9,250	14,182	-
Other Tenants	-	142,721	149,961	189,007	-

Table 18. Acres Operated by Farmers in Each Tenure Groups According to Counties; Census Years 1910 to 1935

Source: United States Census, Vol. I, 1935; Vol. II, Part II, 1930; 14th Census 1920; Vol. VII, 1910.

and the state of the	1	and the state of	:		1	199 Y	1		8	
	: 19	10	1	1920	1	1925	1	1930	:	1935
McIntosh County	L									
Total	2,	785		3,449		3,422		3,507		3,410
Owners	1	544		823		756		501		542
Part Owners		103		296		132		234		194
Managers		2		7		2		18		4
Tenants	2,	136		2,323		2,532		2,764		2,670
Cash Tenants		252		154		77		82		-
Other Tenants	1,1	384		2,169		2,455		2,682		-
Muskogee Count	Z									
Total	3,	192		3,531		3,958		4,487		4,480
Owners		839		1,020		988		796		845
Part Owners		221		388		332		464		413
Managers		13		18		7		19		11
Tenants	2,	119		2,105		2,631		3,208		3,211
Cash Tenants		262		215		176		246		-
Other Tenants	1,	357		1,890		2,455		2,962		-
Wagoner County										
Total	2,	713		2,453		2,935		3,154		3,252
Owners	4	176		519		729		461		510
Part Owners		112		250		250		256		210
Managers		9		6		4		9		12
Tenants	2,	116		1,678		2,066		2,428		2,520
Cash Tenants		365		134		73		124		-
Other Tenants	1,	751	14	1,544		1,993		2,304		-

Table 19. Tenure Status of Farmers, Census Years 1910 to 1935

Source: United States Census, Vol. II, Part II, 1930; 14th Census 1920, Vol. VII, 1910; Vol. I, 1935.

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