OKLAHOMA

AGRICULTURAL EXPERIMENT STATION.

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Oklahoma Weather and Crops for 1897.

G. E. MORROW, Director.

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STILLWATER, OKLAHOMA.

OKLAHOMA

AGRICULTURAL AND MECHANICAL COLLEGE.

AGRICULTURAL EXPERIMENT STATION.

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Oklahoma Weather and Crops for 1897.

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Oklahoma contains about 40,000 square miles. Governo Barnes officially estimates its population at over 300,000. Th great mass of its people are engaged in some form of agricul ture. The greater part of the territory is well settled, but ther are about 8,000,000 acres of public lands. Nearly all of this lie west of the 98th meridian of longitude, a considerable par of it being leased to cattlemen.

The north boundary is 37 degrees, north latitude. Excep in Greer County little of the territory extends south of th 35th parallel. In latitude it corresponds with southern Ken tucky and Tennessee. Except Beaver county which extends in a strip 35 miles wide, to the 103rd meridian west longitude nearly all the territory lies between the 96 deg. 30 min. and 10 deg. west long., being in the same belt as central Kansas an central Texas.

In general the face of the country is rolling prairie, with a considerable number of rivers and streams, usually flowing from the northwest to the southeast and often having high and steep banks. Especially in the eastern half there are con siderable areas covered with timber, usually black jack, or pos oak. In the valleys of the streams timber is usually found.

The altitude increases from the east to the west. Most o the better settled portion of the territory is between 800 an 1,400 feet above sea level.

THE SOIL.

The soil varies much in appearance and considerably in composition . There are considerable areas where the soil is bright red in color, owing to iron oxides. Many of the "black jack ridges" and some stream bottoms are quite sandy. There are many "alkali spots" in different parts of the territory but these are usually not large.

As a whole the soil may be described as a fine sand, the particles lying very compactly largely because of the lack of any considerable quantity of decayed vegetable matter. Its appearance leads many to think of it as a clay soil. Most of it has a good degree of fertility; much of it an abundant supply of plant food. Water penetrates it slowly but it holds moisture well. The sub-soil is frequently more compact than is desirable. Experiments show that sub-soil plowing and applying stable or other vegetable manure are helpful in improving the physical condition of the soil.

RAINFALL.

Oklahoma lies between the distinctively northern and southern parts of the United States. Its western half is in what the scientists call the "semi-arid region". Its eastern part has sufficient annual rainfall for successful crop production. No one can decide just where the line should be drawn. In some years localities in western Oklahoma have more rain than falls in the eastern portion. The annual rainfall is not always well distributed. Remarkably heavy rainstorms are not uncommon in the summer or spring months. In 1897, Edmond had 13.35 inches in April. Ft. Reno had slightly more than the total rain for the other months of the year, in April and May.

For 1897 the average rainfall reported from 12 stations was almost exactly 29 inches. Including seven stations in the Indian Teritory the average was nearly 30 inches. In 1896 the average reported by 17 stations was 24.69 inches.

In general the rainfall decreases from the east to the we as is the case in the states north and south of Oklahon Taking 97 deg. 30 min. as a dividing line—Guthrie, Oklahor City and Norman are on or near this line—the average rainf in 1897 reported by seven stations east of the line was 34. inches, or excluding S. McAlester, 33.68 inches while the av age at ten stations west was 26.90 inches. In 1896 seven st tions east of this line showed an average of about 27 inch while seven stations west had about 24.50 inches.

The average rainfall at Oklahoma City for seven years h been 30. 51 inches.

The rainfall during the winter months is usually light. 1897 Woodward was the only station reporting two inches du ing either January or February and Winnview the only one r porting two inches in October, November or December.

TEMPERATURE.

The extremes of temperature between summer and wint are great, but not nearly as much so as in states further nort Zero, Fahrenheit, or slightly below is reported from sor points almost every winter. Five degrees below zero, at Pr dence, Woods County, in January, was the lowest temperatu reported in 1897. A maximum of 100 degrees or a little mo is usually reached in summer. The summer of 1897 was one unusual and long continued heat in most parts of the Unit States. The highest temperature reported in the territo was 107 degrees. At several stations this or a slightly low temperature was reported for days in July, August and Se tember, and at two places 100 degrees was recorded in June.

The average mean temperature is about 60 degrees. In 18 the temperature was below freezing point in but few place The lowest temperature reported for October was 29 degrees, Mangum in the southwest corner of the territory. Oats a frequently sown in February and corn planted in March.

These statements as to the rainfall and temperature are cor piled from the reports made by the very efficient Oklahoma Se

on Director of the U. S. Climate and Crop Service. These reorts are compiled from those made to him by volunteer obrvers in different parts of the territory.

FIELD CROPS.

Oklahoma can produce most of the great field and orchard ops grown in the states north and south, and is well adapted rearing and fattening each of the great classes of farm imals.

No system has been perfected by which aggregate acreage or eld of the different crops can be determined. As a whole the ops of 1897 were very good. Comparatively little land is der cultivation west of 98 deg. 30 min. west longitude. arge yields are reported from localities lying west of this, but e statements following apply to the part of the territory ing east of this line.

Wheat had the largest acreage. It is doubtful if any equal ea in any state gave so large an average yield. At the Exriment Station, on upland prairie soil, a number of plats gave elds ranging from 50 to 58 bushels per acre and the average eld of 83 plats, including many varieties, was almost 40 bushs per acre.

Corn was affected by hot weather and lack of rain at a crital period in its growth and, in some localities, by hot winds. any good yields are reported. The Experiment Station had elds up to 62 bushels per acre on creek bottom land. On upnd it had large yields of good fodder, but the yield of grain obably did not reach 20 bushels on any plat.

Kafir corn did well over a large part of the territory. At e Station on upland soil, several plats gave 40 bushels or ore of seed, and all good yield of seed and stalks. The acrege in sweet sorghum was larger than in any former year, and e results good. Trials at the Station increased the good inion which had been entertained of it as a safe and valuable dder crop. Seven tons of well dried fodder were grown per re from sorghum plats.

The oat acreage was not large, but many remarkable yields are reported. At the Station the best yields were something over 60 bushels per acre.

No other grain is largely grown.

There was a large acreage of cotton and, while the territory lies near the north limit of the cotton belt, the average yield, as in 1895 and 1896, is reported as equaling or surpassing that of almost any state in the Union, with satisfactory staple in length and fineness. Yields of from three-fourths to one bale per acre are reported from some localities. At the Station, on upland soil, the average yield from plats of different varieties and under different methods of culture, was 925.2 pounds of seed and 303.7 pounds lint cotton per acre, with the better plats ranging from 300 to 395 pounds of lint cotton. The low price for cotton is a present discouraging factor.

Castor beans are largely grown in many parts of the territory. The crop seems to be well adapted to the poorer land and satisfactory yields are generally obtained.

Potatoes do moderately well; sweet potatoes remarkably well, as do peanuts, which are grown to a considerable extent.

Very large crops of turnips are grown almost every year, with little care. Sugar beets were tested on a good many farms, with report of yields up to 15 tons or more per acre. It seems proven that they can be grown profitably for stock feeding: not so clearly proven that it would be profitable to grow them for beet sugar manufacture. Melons, especially water melons, and "pie melons" for stock feeding, do remarkably well, more particularly on somewhat sandy soils.

The native grasses are nutritious and produce as much as grasses of the class in most parts of the west. In the "short grass region" these grasses give good support to cattle through the winter, unless the season is exceptional. As yet the "tame" or cultivated grasses or clovers cannot be confidently recommended.

Alfalfa has been tried in many localities and, barring some difficulty in securing a good stand, it has generally given much satisfaction, even on the upland soils. Bermuda grass

is hardy unless in the northern fourth and makes a luxuriant growth, spreading rapidly.

Cow-peas are successfully grown and are believed to be a valuable crop, not only as one of the best to be plowed under as a green manure but as giving much nutritious food, fairly palatable when well cared for. Soy-beans have been rather disappointing in the trials at the Station. Millet does very well.

FRUITS.

In different parts of the territory apples of remarkable size and beauty were grown although the orchards are quite young. It is too early to decide that they can be grown successfully on all soils or in all parts of the territory. The peach crop was remarkably large, and a number of the best varieties may be recommended with confidence. Apricot and nectarine trees gave good yields in several localities. Possibility of injury by frost in the spring is the most serious danger for each of these classes of fruit. Much importance is attached to planting on fairly high land and on a northern slope, if this be possible. A large crop of grapes was reported from almost every part of the territory where the vines were old enough to bear. Blackberries do well: strawberries moderately well. At the Station there was an excellent crop from plats of a number of varieties.

LIVE STOCK.

Aside from the possibility of infection of cattle with southern or Texas fever, (and the quarantine laws now in force greatly reduce this danger,) and the fact that hog cholera caused considerable loss in some parts of the territory, the year was a prosperous one to all classes of breeders and feeders of good stock. But little has been done in the way of breeding first class horses. Too many of those on the farms as well as in the towns have much pony blood. Horses can be cheaply reared. It is not probable that the heavy draft horse

will become popular for home use but there will be an increasing demand for most other classes. Considerable numbers of mules are raised, the chief fault being the lack of size and quality of many of the dams. Good mules bring paying prices.

The chief interest of much of the western part of the territory is cattle grazing. In the eastern part there is room for many more cattle and the cheap pasturage and cheap grain and rough forage for winter feeding are arguments in favor of increased attention to breeding cattle. The dairy interest is not largely developed. One or two creameries in the southern part of of the territory send their product to Texas markets. More attention is given than in former years to improving the cattle stock. There is need of more breeders of pure bred beef cattle for sale to farmers and ranchmen.

Large numbers of hogs were brought from Texas in the early part of the year and fattened in eastern Oklahoma. Most farmers have a fair supply of hogs, a fair proportion being well bred. Especially where there are alfalfa pastures pigs can be reared at small cost. Fall pigs are thought most profitable by many farmers.

Little has been done in the way of sheep breeding or fattening. It is believed this industry should be encouraged and that it promises good profit. The Experiment Station has begun work with sheep.

The poultry interests of Oklahoma are already very important and are to become much more so.

Temperature and Rainfall in 1897.

Meteorological observations are daily made at the Station, at Army Posts and by volunteer observers at various places in Oklahoma and the Indian Territory. Reports are forwarded to Oklahoma City, at which place the Climate and Crop Service of the Weather Bureau of the U. S. Department of Agriculture maintains a central office for this section, under the direction of Jas. I. Widmeyer, who is also observer at that point.

The accompanying tables have been compiled by Mr. Widmeyer or from data furnished by him. They are believed worthy of careful study as a knowledge of the climatic conditions is especially important in a newly settled agricultural region. As there are marked variations from year to year summaries are given as to the rainfall at different places for each of several years, especially at Oklahoma City and Ft. Reno, at which places the observations have been made either by specially trained observers or under direction of army officers. The reports from a number of places are not complete for the year but give facts for most of the months.

In each of the tables places marked with a * are in the Indian Territory, the others in Oklahoma.

PRECIPITATION IN INCHES BY MONTHS IN 1897.

	Lat.	Lon.	Jan	Feb	M'h	Apr.	Ma.	Jun	Jul	Au.	Sep	Oct	N'r	Dec	Total
Alva	36:48	98:40	1.50	1.55	1.60	3.40	4.00	1.70	.90	5.40	2.40	....	....	....	.....
Arapahoe	35:30	98:55	1.56	.46	1.71	4.22	8.80	2.85	1.74	1.65	2.30	.99	.18	.23	26.69
*Anadarko	35:08	98:15	.60	1.20	3.37	3.32	7.12	2.60	2.19	.92	.35	1.72	.25	.30	23.94
Burnett	35:10	97:10	1.75	1.20	5.24	4.41	5.85	3.37	2.42	2.32	2.93	1.61	1.61	.76	33.47
Clifton	35:30	96:55	1.19	1.25	4.82	9.22	3.61	2.64	3.63	2.73	.60	1.26	.77	.97	32.69
Edmond	.....	.....	.86	1.86	3.69	13.35	6.29	2.05	....	....	.76	.37	.70	.77	.....
*Fort Sill	34:40	98:23	1.50	.39	2.62	.80	8.07	2.80	1.95	2.37	1.75	2.73	.49	.80	26.27
Fort Reno	35:33	98:01	1.10	1.55	1.80	7.36	6.07	2.69	.66	1.01	1.27	1.28	.37	.50	25.66
Hennessey	36:12	97:57	.58	.79	....	5.39	7.22	1.40	.88	4.09	8.10	1.11	T..	.20	.....
*Healdton	34:10	97:25	2.67	.34	4.85	2.55	8.41	3.85	2.05	4.80	2.34	2.52	T..	1.95	36.33
*Lehigh	34:26	96:10	6.00	.42	8.13	4.83	3.94	4.59	3.01	.43	.25	1.93	T..	4.27	37.80
Mangum	34:48	99:32	1.82	.26	1.48	2.72	3.52	3.23	2.28	2.91	2.78	.92	.36	.21	22.49
Norman	35:20	97:30	1.22	1.15	4.43	4.87	6.07	5.35	2.34	1.60	1.02	1.38	.55	.86	31.14
Jefferson	36:45	97:50	.91	1.02	2.65	5.80	4.96	5.15	1.15	5.48	1.36	.72	.00	.50	29.70
Prudence	.....	.....	1.65	1.50	2.68	6.49	8.26	3.81	1.59	3.89	4.49	1.08	T..	.71	36.15
Oklahoma	35:26	97:33	1.10	1.32	4.71	5.87	6.02	2.58	1.90	1.66	1.22	.81	.58	.70	28.47
Sac & Fox Agcy	35:30	96:40	1.40	1.30	5.80	7.90	3.90	2.50	2.70	2.40	1.60	1.00	.70	....	.....
Stillwater	36:10	97:05	.81	1.51	3.62	6.36	4.77	4.13	2.63	4.51	.71	.97	.80	.87	31.69
*Tahlequah	34:48	94:58	6.83	1.25	5.36	6.60	4.59	3.45	....	5.47	.98	1.00	1.38	1.05	.....
Waukomis	.. ..	.. ..	.78	.24	2.32	4.15	5.38	1.22	2.27	2.85	2.25	1.26	.00	.48	23.13
Winnview	36:10	98:30	1.53	.81	2.29	4.49	7.42	2.33	1.54	1.08	2.25	2.36	.03	.42	26.55
Wagoner	.....	.....	3.26	.90	3.26	2.24	.26	4.07	3.22	4.37	T..	1.29	1.19	1.30	25.26
*So. McAlester	34:56	95:47	4.12	.00	8.50	7.75	2.70	6.50	2.45	2.37	.41	.99	1.22	5.22	42.23
So. McAlister	34:56	95:47	4.12	.00	8.50	7.75	2.70	6.50	2.45	2.37	.41	.99	1.22	5.22	42.23
*Tulsa	36:08	95:56	2.40	.97	6.70	5.60	.80	2.20	3.72	4.24	.00	1.22	1.27	1.08	30.22

TEMPERATURE RECORDS FOR 1897.

	Lat.	Long.	Temp	Jan	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
Arapahoe	35:30	98:55	Mean	31.0	39.8	49.0	58.6	67.2	76.6	82.2	80.4	75.0	64.3	47.8	34.2	58.8
	.....	.....	Max	57.0	72.0	87.0	87.0	91.0	100.0	107.0	107.0	105.0	92.0	82.0	67.0	....
	.....	.....	Min	3.0	14.0	14.0	31.0	42.0	45.0	54.0	55.0	49.0	29.0	7.0	1.0	....
*Anadarko	35:08	98:15	Mean	36.0	45.2	52.8	61.7	68.0	78.2	83.2	78.0	75.7	67.4	52.0	39.0	61.4
	.....	.....	Max	77.0	80.0	87.0	87.0	90.0	100.0	104.0	106.0	103.0	96.0	95.0	75.0	....
	.....	.....	Min	1.0	15.0	18.0	32.0	49.0	43.0	51.0	51.0	42.0	31.0	14.0	4.0	....
Burnett	35:10	97:10	Mean	33.7	41.8	51.7	59.9	66.0	76.2	80.3	77.0	72.6	64.4	50.6	36.2	59.2
	.....	.....	Max	67.0	77.0	86.0	83.0	86.0	94.0	102.0	100.0	98.0	92.0	80.0	74.0	....
	.....	.....	Min	1.0	15.0	18.0	34.0	39.0	47.0	48.0	54.0	41.0	32.0	15.0	8.0	....
Clifton	35:30	96:55	Mean	33.0	41.6	51.8	60.8	67.4	77.4	81.5	78.0	74.1	65.4	48.7	36.0	....
	.....	.....	Max	66.0	73.0	87.0	85.0	91.0	99.0	102.0	103.0	102.0	96.0	82.0	75.0	....
	.....	.....	Min	-2.0	13.0	17.0	32.0	39.0	45.0	54.0	54.0	38.0	31.0	12.0	7.0	....
Fort Reno	35:33	98.01	Mean	33.4	42.6	51.8	58.8	65.6	75.3	81.0	79.1	75.4	64.4	50.2	37.8	59.6
	.....	.....	Max	62.0	75.0	86.0	82.0	85.0	94.0	107.0	103.0	99.0	98.0	80.0	69.0	....
	.....	.....	Min	2.0	12.0	11.0	32.0	42.0	46.0	56.0	57.0	48.0	33.0	10.0	0.0	....
*Fort Sill	34:40	98:23	Mean	35.1	44.0	52.6	60.4	67.2	76.2	81.8	79.9	74.8	66.1	51.7	35.7	60.5
	.....	.....	Max	64.0	76.0	83.0	84.0	86.0	99.0	106.0	101.0	99.0	91.0	82.0	72.0	....
	.....	.....	Min	5.0	20.0	18.0	34.0	43.0	48.0	55.0	56.0	48.0	34.0	16.0	4.0	....
*Healdton	34:10	97:25	Mean	37.4	47.1	56.3	63.0	67.4	78.4	83.1	79.6	74.2	64.9	53.9	39.0	62.0
	.....	.....	Max	68.0	82.0	88.0	87.0	88.0	97.0	101.0	102.0	95.0	87.0	82.0	76.0	....
	.....	.....	Min	6.0	15.0	20.0	37.0	45.0	53.0	52.0	59.0	48.0	35.0	16.0	9.0	....
Jefferson	36:45	97:50	Mean	36.6	41.8	53.0	61.0	67.4	77.7	83.2	82.4	76.2	....	50.6	36.4	....
	.....	.....	Max	72.0	90.0	91.0	89.0	93.0	105.0	105.0	105.0	99.0	97.0	85.0	75.0	....
	.....	.....	Min	-2.0	12.0	11.0	28.0	40.0	42.0	54.0	58.0	46.0	30.0	11.0	5.0	....
*Lehigh	34:32	96:10	Mean	37.1	46.0	55.2	60.8	68.0	76.5	82.5	81.4	76.0	67.7	53.2	39.7	62.0
	.....	.....	Max	66.0	83.0	87.0	82.0	88.0	98.0	104.0	108.0	108.0	98.0	85.0	78.0	....
	.....	.....	Min	6.0	17.0	24.0	37.0	42.0	50.0	54.0	53.0	36.0	33.0	14.0	11.0	....
Mangum	34:48	99:32	Mean	36.6	45.6	51.4	60.0	67.0	77.0	80.8	78.8	73.6	63.9	50.0	36.8	60.1
	.....	.....	Max	70.0	80.0	84.0	82.0	89.0	104.0	106.0	105.0	101.0	91.0	87.0	74.0	....
	.....	.....	Min	6.0	17.0	16.0	32.0	42.0	42.0	55.0	53.0	48.0	28.0	14.0	3.0	....
Norman	.....	.....	Mean	35.0	44.5	51.8	60.5	68.3	77.4	83.6	79.7	76.5	66.5	50.7	37.3	61.0
	.....	.....	Max	63.0	76.0	85.0	97.0	90.0	97.0	106.0	104.0	102.0	94.0	82.0	73.0	....
	.....	.....	Min	2.0	19.0	17.0	31.0	47.0	46.0	55.0	54.0	45.0	32.0	13.0	6.0	....
Oklahoma City	35:26	97:33	Mean	34.8	42.1	50.4	59.6	65.8	75.4	80.8	78.4	75.2	66.0	48.6	35.6	59.4
	.....	.....	Max	63.0	74.0	84.0	80.0	85.0	94.0	103.0	98.0	96.0	91.0	78.0	70.0	....
	.....	.....	Min	3.0	19.0	18.0	37.0	42.0	48.0	57.0	56.0	49.0	36.0	11.0	6.0	....
Sac & Fox A...	35:30	96:40	Mean	33.6	40.7	51.2	59.0	66.0	76.0	80.9	78.1	74.4	65.4	48.0	....	....
	.....	.....	Max	68.0	78.0	86.0	83.0	88.0	97.0	104.0	102.0	101.0	95.0	88.0	....	....
	.....	.....	Min	0.0	15.0	11.0	32.0	40.0	43.0	50.0	53.0	38.0	29.0	12.0	....	....
Stillwater	36:10	97:05	Mean	32.1	41.4	51.2	58.3	65.4	75.6	81.2	77.2	74.2	64.2	47.0	32.4	58.4
	.....	.....	Max	64.0	76.0	88.0	83.0	88.0	93.0	106.0	100.0	98.0	94.0	82.0	66.0	....
	.....	.....	Min	3.0	17.0	16.0	32.0	41.0	44.0	51.0	56.0	40.0	30.0	8.0	4.0	....
Waukomis	.....	.....	Mean	30.9	40.1	49.8	57.9	66.0	78.2	83.6	82.4	75.4	65.2	43.3	36.2	59.1
	.....	.....	Max	60.0	73.0	88.0	87.0	92.0	104.0	107.0	105.0	100.0	98.0	....	68.0	....
	.....	.....	Min	1.0	10.0	12.0	31.0	40.0	44.0	54.0	65.0	51.0	32.0	12.0	2.0	....
Prudence	.....	.....	Mean	33.6	41.7	49.8	58.5	66.2	77.0	80.1	79.0	73.2	62.7	46.0	33.6	58.4
	.....	.....	Max	61.0	78.0	91.0	87.0	92.0	102.0	106.0	104.0	97.0	82.0	76.0	63.0	....
	.....	.....	Min	-5.0	15.0	12.0	30.0	36.0	36.0	56.0	54.0	50.0	32.0	9.0	2.0	....

FIRST AND LAST KILLING FROSTS AT OKLAHOMA STATIONS, 1897.

STATIONS	LAST OF SPRING	FIRST OF AUTUMN	STATIONS	LAST OF SPRING	FIRST OF AUTUMN
Alva	March 25		Norman	April 9	Oct. 29
Arapahoe	April 9	Oct. 29	Pond Creek†	April 16	Oct. 29
Anadarko	April 9	Oct. 29	Prudence	April 14	Oct. 29
Burnett	March 25	Oct. 29	Purcell	April 9	Oct. 29
Clifton	April 9	Oct. 29	Sac & Fox Agency	April 9	Oct. 29
Edmond	March 24	Nov. 2	Stillwater	April 9	Oct. 29
Ft. Reno	April 11	Nov. 2	Waukomis	April 16	Oct. 29
Ft. Sill	March 23	Nov. 2	Winnview	March 25	Oct. 29
Guthrie		Nov. 2	Woodward	April 14	
Hennessey	April 16	Oct. 29	Wagoner	March 24	Oct. 29
Healdton	March 24	Nov. 2	S. McAlester	March 17	
Kemp	March 23	Nov. 2	Kingfisher	April 14	Oct. 29
Keok. Falls	April 8		Ponca City	April 9	
Lehigh	March 24	Nov. 2	Newkirk		Oct. 29
Mangum	April 14	Oct. 29			

Jefferson

MONTHLY MEAN TEMPERATURE, OKLAHOMA, O. T.

	Jan.	Feb	Mch.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Ann'l
1891	37.8	39.2	43.6	60.8	64.4	74.3	76.2	76.8	72.4	60.8	47.0	44.4	58.1
1892	33.0	44.5	44.6	59.2	66.2	75.1	79.0	77.0	72.4	62.0	48.0	35.6	58.0
1893	37.6	35.8	50.2	62.4	65.4	76.2	81.2	75.2	74.4	61.7	45.4	43.7	59.1
1894	36.8	34.8	52.6	62.9	68.2	75.5	79.4	78.4	74.4	64.0	49.8	41.6	59.9
1895	33.2	29.5	50.0	63.1	69.3	76.8	78.3	79.1	76.1	55.7	45.0	38.4	57.9
1896	39.4	43.4	46.4	66.1	73.3	76.7	80.7	83.2	71.9	59.2	46.8	45.2	61.0
1897	34.8	42.1	50.4	59.6	65.8	75.4	80.8	78.4	75.2	66.0	48.6	35.6	59.4
Average	36.1	38.5	48.2	62.0	67.5	75.7	79.4	78.3	73.8	61.3	47.2	40.6	59.0

RAINFALL, OKLAHOMA, O. T.

	Jan.	Feb.	Mch.	Apr	May	June	July	Aug	Sep.	Oct.	Nov.	Dec.	Annual
1891	2.48	.44	3.04	4.30	5.92	4.73	6.17	.79	5.43	.31	1.17	2.65	37.43
1892	.93	2.22	3.17	1.33	11.90	2.48	3.66	4.27	1.29	4.68	1.01	5.35	42.29
1893	.43	.69	1.25	3.12	1.53	1.60	3.80	5.65	3.20	.06	1.26	1.69	24.28
1894	3.74	1.11	4.79	2.82	1.87	3.71	1.66	1.95	1.65	1.84	.07	1.51	26.72
1895	.93	.07	.82	.41	1.34	3.11	5.95	4.44	2.93	2.93	5.79	3.78	32.49
1896	.45	.14	1.03	1.07	4.62	3.32	1.81	1.83	2.14	1.91	2.41	1.22	21.90
1897	1.10	1.32	4.71	5.87	6.02	2.58	1.90	1.66	1.22	.81	.58	.70	28.47
Average ...	1.44	.85	2.69	2.70	4.74	3.07	3.56	2.94	2.55	1.79	1.75	2.41	30.49

RAINFALL AT FT. RENO, O. T.

	Jan.	Feb.	Mch	Apr.	May	June	July	Aug	Sep.	Oct.	Nov.	Dec.	Annual
1891	2.02	.13	2.47	2.10	3.02	5.02	6.97	1.02	1.17	.30	.85	1.70	26.77
1892	.66	1.00	3.10	1.12	7.37	2.62	1.80	4.30	1.93	5.21	0	4.40	33.51
1893	.30	.72	1.90	1.92	1.88	3.25	5.62	10.25	1.17	. 0	.93	1.46	29.40
1894	1.51	.50	1.90	3.30	1.30	1.10	1.31	1.61	3.16	1.49	1.00	.10	18.28
1895	1.13	.75	.25	1.74	.94	2.41	2.24	4.45	.60	2.53	3.24	2.50	22.78
1896	.40	.30	.60	1.05	1.50	1.29	4.05	3.31	1.85	2.18	1.30	1.30	19.13
1897	1.10	1.55	1.80	7.36	6.07	2.69	.66	1.01	1.27	1.28	.37	.50	25.66
Average ...	1.02	.71	1.72	2.65	3.15	2.62	3.23	3.70	1.59	1.85	1.09	1.71	25.04

RAINFALL FOR PLACES AND YEARS INDICATED.

PLACE.	COUNTY.	1889	1890	1891	1892	1893	1894	1895	1896	1897
Burnett	Pottawatomie....	.....	.....	.....	45.84	27.75	25.10	36.17	26.08	33.47
Fort Reno.....	Canadian.....	31.91	28.79	26.77	33.51	29.40	18.28	22.78	19.13	25.66
Fort Sill.....	Commanche, I.T..	29.29	31.08	32.76	34.32	24.19	24.08	29.17	17.12	26.29
Fort Supply.....	Woodward.....	23.61	18.26	30.43	21.99	13.15	18.24	.....	.....	.....
Gurthie	Logan.....	.....	.....	.....	37.98	.....	22.99	30.71	31.71	.....
Mangum	Greer.....	.....	.....	.....	27.20	11.39	19.52	32.89	22.85	22.49
Oklahoma	Oklahoma.....	.....	.....	37.43	42.29	24.28	26.72	32.49	21.90	28.47
Jefferson	Grant.....	.....	.....	.....	.....	.....	17.79	21.56	26.01	29.70
Purcell	Chickasaw, I. T...	.....	.....	.....	40.03	32.38	24.88	.....	31.28	.....
Tulsa	Creek, I. T.....	26.28	34.15	24.80	46.16	34.12	27.09	46.81	23.80	30.22
Winnview	Blaine.....	.....	.....	19.34	.....	.....	22.98	26.19	21.72	26.55