Land and Climate[11]

Size

Nebraska measures 459 miles (740 kilometers) across at its widest point, following a diagonal from southeast to northwest. Nebraska's total area, including land and water, is 77,358 square miles (200,358 square kilometers) — almost 20 percent larger than New England. The state's land area alone is 76,878 square miles (199,113 square kilometers). Nebraska ranks 16th among the states in land and water area and 15th in land area alone.

Elevation

Nebraska's elevation rises gradually from southeast to northwest in a series of rolling plateaus. The lowest point, 840 feet (256 meters) above sea level, is in southeastern Richardson County at the Missouri River. The highest point, 5,424 feet (1,654 meters) above sea level, is in southwestern Kimball County. Nebraska's average elevation is 2,600 feet (793 meters).

Geographic Regions

Nebraska has two major geographic regions — the Dissected Till Plains and the Great Plains. The Great Plains can be divided into smaller areas, among them the Loess Plains, the Loess Hills, the Sandhills and the High Plains.

The Dissected Till Plains formed when Ice Age glaciers left behind a rich soil-forming material, called till, over the eastern fifth of the state. Windblown dust (loess) later settled on the till, and over the years, streams dissected the region, forming a rolling terrain. Along the Missouri River, the terrain includes bluffs and river-deposited lowlands. This combination makes the Dissected Till Plains well-suited for farming.

The Great Plains stretch west across the rest of the state. The largest of its subregions is the nearly 20,000 square miles of sand hills north of the North Platte and Platte rivers that stretch to South Dakota. The Sandhills, the largest stabilized sand dune area in North America, were formed by wind whipping sand into hills and ridges interspersed with valleys that contain streams, lakes and wetlands. Grasses have stabilized the dunes. The abundant water and grasslands make this area ideal for raising cattle.

The Loess Plains consist of windblown silt (loess) that covers about 7,948 square miles of relatively flat, intensively farmed land in south-central Nebraska interspersed with lakes and wetlands. This region is sometimes called the "Rainwater Basin" or "Rainbasin." The Loess Hills lie north of the Platte River and south and east of the Sandhills. Here, windblown silt has formed rolling hills where farms and ranches predominate.

[11] Information for this section compiled from the following sources: Conservation and Survey Division, University of Nebraska-Lincoln; Nebraska Department of Natural Resources; Nebraska Game and Parks Commission; Natural Resources Conservation Service, U.S. Department of Agriculture; Nebraska State Climate Office, High Plains Climate Center; National Oceanic and Atmospheric Association, U.S. Department of Commerce; *Statistical Abstract of the United States*, Bureau of the Census, U.S. Department of Commerce; *The Nebraska Databook*, Nebraska Department of Economic Development.

The High Plains lies northwest, southwest and due west of the Sandhills. In its 12,000 square miles are the scenic Wildcat Hills and Pine Ridge areas in the southern and northern Panhandle, respectively. A small area of the Badlands, which are mostly in South Dakota, extends into Nebraska. This unusual landscape in the northwestern part of the state has been carved by erosion and is characterized by steep, mostly bare hills of siltstone and sandstone and by mushroom-like cap rocks on more narrow pedestals. These rocks are especially distinctive in Toadstool Park.

Toadstool Park in Northwest Nebraska's Badlands

Mineral Resources

Petroleum and natural gas fields lie in the Panhandle and southwestern and southeastern parts of Nebraska.[12] Sand and gravel deposits are found along the Platte and Republican rivers, their tributaries and elsewhere. These deposits are mined largely for construction purposes. Limestone quarries lie near the Missouri River in the southeast. Other minerals produced in Nebraska include sandstone; clay, usually for brick or tile; shale; and uranium, which is mined as a slurry in one location in northwestern Nebraska.

[12] For details on Nebraska oil and gas production, see Page 685.

Water and Soil Conservation

Nebraskans have long realized that using soil and water resources wisely is important, particularly because of the state's agricultural economy. Irrigation ditches were constructed in Nebraska as early as 1856. However, Nebraska's extensive irrigation system stems from the droughts of the 1890s and 1930s.

Initially, Nebraska received all its irrigation water from streams and rivers. These waterways continue to supply water for Nebraska's cropland today. The Platte, Loup and Republican rivers are especially important.

Since 1940, irrigation from wells has increased dramatically. As of April 2010, the state had 106,625 registered irrigation wells. In 2007, there were 8.5 million acres of irrigated land in Nebraska.[13]

During the drought of the 1930s, the federal government created extensive soil conservation programs. By 1950, all of Nebraska's farm and ranch land was included in soil conservation districts. Local watershed groups were organized by 1954 legislation.

Today, Nebraska is divided into 23 natural resources districts (NRDs).[14] These governmental units have local responsibility for soil and water conservation and protection. The state has given NRDs a variety of regulatory tools to deal with contamination, groundwater shortages and user conflicts that occur.

Cattle Grazing near a Center-Pivot Irrigation System

[13] Source: Nebraska Department of Natural Resources and the USDA Nebraska Agricultural Statistics Service. For more irrigation statistics, see Page 483.

[14] For more information on NRDs, see Pages 567 and 871.

Rivers and Lakes

Nebraska is the only state that lies entirely within the drainage area of the Missouri River, which flows along Nebraska's northern and eastern borders for about 450 miles. Its major tributary in Nebraska is the Platte River, which flows across the state from west to east.

The Platte River begins where the North and South Platte rivers meet near the city of North Platte. The Platte, which is too shallow for navigation, was described as "a mile wide and an inch deep" by early explorers and pioneers crossing Nebraska. Today, the river is used for irrigation, municipal water supply, recreation and hydroelectric power production.

Niobrara River near Valentine

The Platte's main tributaries are the Loup and Elkhorn rivers, which originate in the Sandhills and flow southeast across north-central Nebraska. The Niobrara River drains northern Nebraska; the Republican, Big Blue, Little Blue and Nemaha rivers drain southern and southeastern Nebraska, respectively.

Nebraska has about 2,500 small lakes, both natural and man-made. Hundreds of natural, shallow lakes dot the landscape of the Sandhills. Lake McConaughy, the state's largest lake (about 55 square miles), was formed by the construction of the Kingsley Dam on the North Platte River. Other large man-made lakes include Jeffrey and Sutherland reservoirs on the Platte River system; Swanson, Medicine Creek and Harlan County reservoirs on the Republican River; Enders Reservoir on the Frenchman River; Calamus Reservoir on the Calamus River system; and Lewis and Clark Lake on the Missouri River system.

One of Nebraska's greatest water resources lies not above, but below ground. The state's vast underground water supply, accumulated over thousands of years, is about 1.9 billion acre-feet, enough to cover the state with an estimated 34 feet of water. This

water supply — much of it part of the Ogallala Aquifer — is used extensively for irrigation.

Climate

An old expression about weather in Nebraska is that if you don't like it now, wait five minutes and it will change.

Nebraskans often experience extremes in temperature and frequent changes in the weather. Tornadoes, thunderstorms, blizzards and hailstorms are part of hot summers and severely cold winters. Temperature and rainfall vary greatly from year to year. The spring and fall seasons usually are pleasant. The temperature gradually drops from southeastern to northwestern Nebraska, except in the coldest part of the year.

Thunderstorm Building Over the Plains

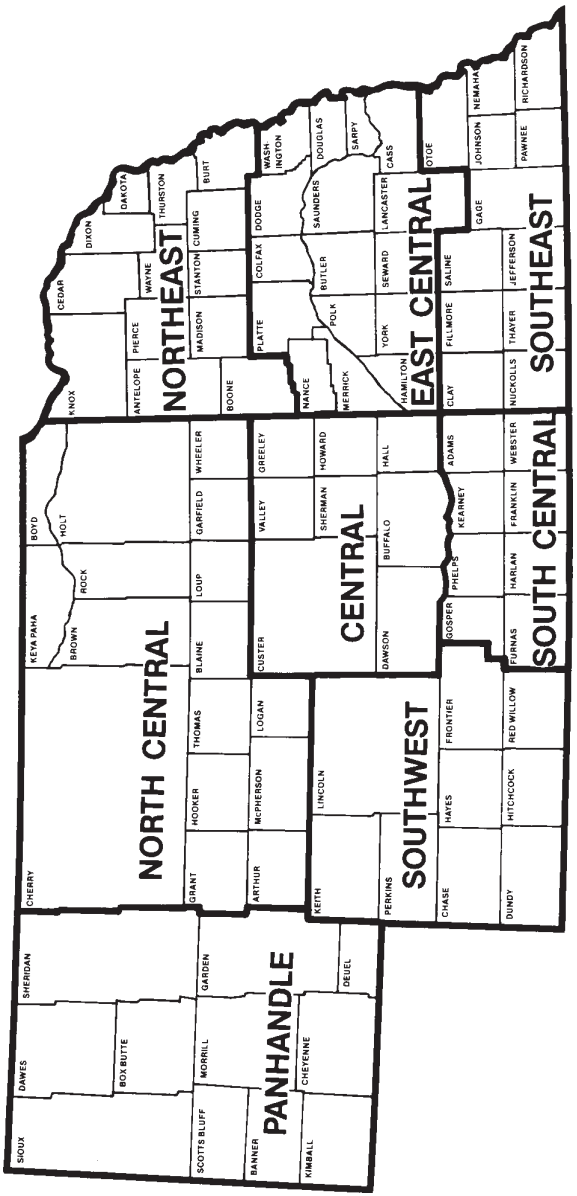
The highest temperature ever recorded in Nebraska, 118 degrees Fahrenheit (48 degrees Celsius), was on July 15, 1934, at Geneva; on July 17, 1936, at Hartington; and on July 24, 1936, at Minden. The lowest temperature on record, minus 47 F (minus 44 C), was at Camp Clarke near Northport on Feb. 12, 1899, and at Oshkosh on Dec. 22, 1989.

Like the temperature, precipitation and humidity decrease gradually from east to west across Nebraska. The unpredictable nature of rain results in drought some years and flooding in others.

Nebraska's growing season ranges from about 165 days in the southeast to 120 days in the northwest. Killing frosts usually occur from about Oct. 15 to April 25 in the southeast and about Sept. 20 to May 20 in the northwest.

Prevailing winds blow across Nebraska from the northwest between October and April, and from the south and southeast during other times. Average wind velocity is about 10 miles (16 kilometers) per hour. Tornadoes are not uncommon in the spring and summer. An average of 41 are spotted every year, and some of them can cause extensive damage.

Nebraska Climatic Divisions[15]



[15] Source: National Oceanic and Atmospheric Administration, U.S. Department of Commerce.

Climate of Nebraska*

Normal Temperature[16]

Month	Pan-handle	North Central	North-east	Central	East Central	South-west	South Central	South-east
January	24.1	21.5	19.6	22.3	22.0	25.1	24.7	23.8
February	28.6	27.3	25.7	28.1	27.9	31.0	30.5	29.8
March	35.0	36.1	36.5	37.5	38.6	39.1	39.8	40.5
April	45.3	46.7	48.7	48.4	50.6	48.8	50.5	51.6
May	55.7	57.6	60.2	59.1	61.5	58.7	60.6	62.0
June	65.7	67.5	70.1	69.2	71.7	69.2	71.1	72.1
July	72.9	73.3	74.6	74.2	76.0	74.9	76.3	76.7
August	70.8	71.4	72.3	72.1	73.6	73.0	74.0	74.5
September	60.6	61.4	63.1	62.7	64.7	63.2	64.7	65.7
October	48.8	49.3	50.9	50.6	52.7	51.1	52.6	53.8
November	34.7	33.7	34.8	35.1	37.1	36.6	37.3	38.8
December	26.7	24.3	23.2	25.2	25.6	27.8	27.6	27.6
Annual	47.4	47.5	48.3	48.7	50.2	49.9	50.8	51.4

Average Humidity, Wind and Weather[16]

Station	Relative Humidity (Percent)	Mean Wind Velocity (MPH)	Prevail-ing Wind Direction	Sunshine (Percent of Pos-sible)	Number of Days Cloudy/ Not[17]	Annual Number of Days with Measurable Precipitation
Grand Island	68	11.2	S	-	140/225	89.8
Lincoln	70	9.8	S	62	150/215	93.6
Norfolk	69	10.8	S	-	145/220	94.7
North Platte	66	9.5	NW	66	139/226	87.6
Omaha	70	10.0	S	60	146/219	99.9
Scottsbluff	61	10.1	NW	-	137/228	89.8
Valentine	63	9.8	NW	66	137/228	86.9

Normal Precipitation[16]

Month	Pan-handle	North Central	North-east	Central	East Central	South-west	South Central	South-east
January	.40	.45	.54	.51	.67	.47	.46	.73
February	.44	.58	.70	.61	.71	.52	.56	.81
March	1.08	1.47	2.01	1.86	2.24	1.34	1.92	2.38
April	1.85	2.32	2.81	2.56	2.94	1.97	2.25	2.90
May	3.10	3.64	4.05	3.89	4.51	3.30	4.07	4.42
June	2.67	3.40	4.01	3.78	4.05	3.18	5.42	3.85
July	2.39	3.32	3.41	3.42	3.60	3.03	3.70	4.30
August	1.70	2.46	3.01	2.80	3.35	2.44	3.07	3.49
September	1.43	2.06	2.42	2.14	2.86	1.40	2.11	3.20
October	1.07	1.52	1.91	1.51	2.12	1.25	1.47	2.22
November	.64	1.04	1.51	1.27	1.68	.86	1.27	1.80
December	.41	.48	.68	.57	.85	.43	.53	.93
Annual	17.18	22.74	27.06	24.92	29.58	20.19	24.83	31.03

*Source: Nebraska State Climate Office, the High Plains Climate Center and the National Oceanic and Atmospheric Administration. 2007 is the most recent year data is available.

[16] Figures based National Climatic Data Center 2007 individual stations norms, means and extremes. Time periods vary by station

[17] The designation "not cloudy" is a combination of days that are clear and those that are partly cloudy.

Climate of Nebraska (Cont'd.)

Snowfall, 1956-2007[18]

Year	Pan-handle	North Central	North-east	Central	East Central	South-west	South Central	South-east
1956-57	54.9	39.3	29.4	26.3	29.2	34.4	25.0	27.7
1957-58	46.7	33.0	27.8	33.9	35.4	44.4	52.0	36.2
1958-59	53.7	41.5	30.9	35.3	28.3	44.0	32.2	29.2
1959-60	36.4	52.5	61.0	47.0	59.9	50.1	52.1	62.0
1960-61	45.8	40.0	27.5	26.1	17.2	35.1	20.6	18.6
1961-62	29.5	34.0	49.7	39.4	42.6	21.5	37.3	35.8
1962-63	37.0	31.1	23.2	29.5	33.4	27.1	21.6	22.3
1963-64	28.4	24.5	23.3	29.1	22.3	25.2	21.2	18.0
1964-65	27.3	23.0	37.5	28.3	48.5	26.3	30.2	35.7
1965-66	38.7	25.1	16.8	15.3	11.4	23.9	12.8	9.0
1966-67	29.3	21.4	16.4	26.5	22.1	19.0	20.1	21.4
1967-68	44.6	20.3	9.0	12.3	9.0	15.3	11.3	12.7
1968-69	29.8	42.6	53.0	44.6	44.9	26.7	38.3	34.9
1969-70	59.1	51.5	33.9	30.1	22.8	43.4	27.2	22.5
1970-71	48.3	43.8	26.1	30.8	38.0	41.1	24.9	45.4
1971-72	22.6	21.1	22.7	11.7	17.8	9.7	9.9	17.1
1972-73	58.0	38.0	33.0	30.7	36.0	32.6	22.6	34.4
1973-74	50.7	35.8	24.5	39.9	36.9	37.1	37.6	28.0
1974-75	42.6	36.6	41.0	29.8	45.6	23.3	26.4	39.7
1975-76	58.4	43.4	30.5	36.1	25.0	38.6	30.7	29.1
1976-77	34.0	40.5	16.7	21.9	19.3	26.5	15.2	18.4
1977-78	42.8	39.2	38.1	39.6	38.5	30.1	25.7	35.2
1978-79	60.0	49.1	44.0	35.0	40.0	30.0	25.0	34.1
1979-80	68.3	52.4	25.8	43.5	28.0	64.4	41.6	33.4
1980-81	19.5	14.3	13.2	13.0	12.6	20.3	13.5	10.2
1981-82	23.8	41.4	40.8	33.8	30.6	18.0	22.6	26.0
1982-83	50.2	39.7	48.6	31.2	32.6	33.2	31.5	27.9
1983-84	45.3	56.6	64.7	61.4	49.2	49.0	53.8	44.4
1984-85	24.6	21.6	17.5	22.4	21.3	26.6	27.4	24.2
1985-86	63.4	50.5	32.3	24.5	21.8	42.6	23.4	16.9
1986-87	44.5	33.9	15.4	26.7	19.2	35.3	23.8	25.4
1987-88	54.3	56.9	26.1	32.0	18.7	31.7	21.7	20.6
1988-89	27.5	22.4	21.7	20.5	19.2	20.4	15.2	15.7
1989-90	41.7	26.5	20.8	26.0	20.2	21.4	17.7	20.6
1990-91	36.2	38.9	37.0	27.4	29.0	27.3	13.5	18.8
1991-92	26.3	28.6	31.1	30.8	26.6	28.7	22.8	24.4
1992-93	63.8	46.7	43.6	42.0	39.4	50.1	48.1	39.2
1993-94	40.8	39.1	37.4	35.7	22.8	40.8	40.6	17.4
1994-95	57.2	48.1	29.6	26.9	21.9	35.0	19.4	16.3
1995-96	40.1	39.0	24.2	22.1	26.2	22.8	19.2	21.8
1996-97	33.1	35.1	39.5	29.6	30.5	22.9	23.2	30.4
1997-98	31.4	31.7	28.8	25.3	36.5	19.6	31.6	37.6
1998-99	27.4	33.0	38.1	24.4	31.2	16.9	16.4	22.4
1999-2000	26.5	11.7	12.9	13.5	11.5	16.8	17.1	8.7
2000-01	41.7	49.5	38.7	47.1	37.1	30.0	41.1	45.1
2001-02	27.5	24.5	24.6	19.4	24.0	16.2	18.4	21.4
2002-03	27.8	33.4	35.1	32.0	30.4	24.5	20.6	17.7
2003-04	29.8	23.7	34.3	19.9	32.1	18.0	21.4	28.5
2004-05	31.6	15.0	12.9	21.4	21.5	11.9	17.6	14.7
2005-06	36.0	42.4	36.9	34.7	27.9	17.8	23.5	18.7
2006-07	29.7	33.6	31.0	20.7	25.6	29.8	19.2	22.3

[18] Snowfall totals start on July 1 and end June 30 of the next year. Snowfall statistics from years 1889-90 to 1955-56 are listed in the 1960 *Nebraska Blue Book*.

Climate of Nebraska (Cont'd.)

Annual and Seasonal Precipitation, 1895-2007[19]

	Panhandle		North Central		Northeast		Central	
Year	Annual	Crop Season	Annual	Crop Season	Annual	Crop Season	Annual	Crop Season
1895	18.55	14.68	16.48	13.44	18.77	15.88	19.31	16.65
1896	19.54	15.31	23.23	18.13	30.19	24.09	27.45	22.65
1897	18.31	12.12	23.40	15.27	25.74	17.17	26.49	18.16
1898	16.48	13.74	17.20	15.20	21.13	16.69	21.50	18.57
1899	15.93	11.01	18.25	13.46	21.78	17.05	19.38	15.85
1900	15.82	13.66	22.19	18.89	28.00	21.66	26.50	22.35
1901	17.61	13.95	23.39	17.92	26.08	19.05	25.95	19.31
1902	17.61	14.01	26.14	20.55	38.13	30.02	32.78	26.18
1903	17.88	14.42	24.64	20.44	29.42	24.56	28.64	23.88
1904	18.89	15.00	21.76	17.72	24.72	20.07	25.89	21.95
1905	23.52	19.36	29.67	24.88	34.07	26.73	33.66	27.98
1906	22.79	16.73	25.60	18.38	29.21	20.52	26.86	19.73
1907	18.39	15.03	18.75	15.74	21.71	18.29	19.83	17.86
1908	20.28	16.29	24.35	19.22	30.29	23.74	26.33	21.35
1909	18.12	13.60	21.76	15.48	29.57	19.11	25.28	17.30
1910	13.26	10.30	16.54	13.66	16.68	14.01	17.05	14.89
1911	15.71	11.16	18.75	13.89	25.56	17.62	22.11	15.87
1912	20.11	14.95	20.08	14.69	21.04	14.50	20.52	13.78
1913	16.83	11.25	19.88	14.01	24.67	17.06	23.11	15.30
1914	16.50	13.30	19.25	15.43	23.61	18.57	21.78	17.60
1915	27.67	22.69	33.75	26.65	39.55	29.87	36.98	29.02
1916	14.82	10.64	18.11	14.51	21.99	17.25	18.41	15.30
1917	16.27	13.10	19.45	15.78	24.17	19.86	22.29	19.06
1918	17.63	13.03	20.29	14.20	25.58	16.99	22.31	14.68
1919	16.89	12.20	22.94	16.00	29.08	19.04	27.88	19.66
1920	19.65	15.57	23.36	18.27	26.46	19.92	27.08	21.06
1921	16.40	12.59	18.88	15.44	22.79	18.59	21.40	18.12
1922	14.45	10.55	14.58	10.12	20.11	12.98	16.23	11.27
1923	23.66	19.26	27.16	22.48	25.62	21.71	30.16	25.71
1924	15.51	10.35	20.31	14.26	23.59	16.83	22.43	16.27
1925	17.09	13.40	18.25	14.23	21.20	15.91	22.97	18.31
1926	17.60	13.79	18.77	14.11	22.79	17.22	20.52	15.82
1927	21.62	17.35	21.88	17.14	23.80	17.81	23.26	18.52
1928	16.35	12.24	19.25	14.06	26.70	17.87	24.21	16.52
1929	18.13	13.81	21.94	15.36	24.22	16.71	24.18	18.10
1930	20.27	16.10	24.50	18.12	26.68	19.27	29.76	22.67
1931	11.71	7.30	15.58	10.30	21.95	13.70	18.93	11.65
1932	13.76	10.61	19.48	15.82	25.58	19.41	23.74	19.13
1933	16.77	14.35	18.76	15.31	20.83	14.31	21.78	17.53
1934	10.98	8.13	14.05	10.54	19.26	13.58	13.43	8.78
1935	16.93	14.45	20.69	17.74	23.66	19.05	23.95	20.76
1936	11.45	7.83	15.04	10.38	15.98	10.45	14.95	11.45
1937	12.35	8.70	16.56	12.89	22.53	15.80	20.65	15.74
1938	19.70	16.46	20.85	17.69	25.34	20.92	19.91	17.24
1939	12.35	8.21	17.04	12.70	17.28	12.49	16.74	13.63
1940	12.92	8.65	15.15	9.46	25.88	17.04	15.14	9.33
1941	20.01	15.39	22.48	17.38	26.13	19.91	23.07	19.20
1942	23.30	18.55	22.72	18.85	24.62	18.38	27.78	23.56
1943	13.85	10.76	17.28	14.00	18.98	14.55	18.16	16.24
1944	20.20	14.06	24.77	18.74	35.37	28.50	24.75	19.18
1945	18.86	15.62	19.32	16.47	27.45	22.33	21.82	19.57
1946	17.76	12.70	24.47	15.28	28.51	18.18	26.28	16.07
1947	20.54	16.52	20.93	16.83	25.79	18.13	23.84	19.05
1948	17.35	13.23	19.44	15.67	25.24	17.44	21.37	16.48
1949	19.24	14.25	24.51	16.03	26.42	19.09	24.82	19.43
1950	15.44	13.13	22.41	18.30	26.61	21.15	24.92	21.08

[19]Rainfall totals start Jan. 1 and end Dec. 31. Annual rainfall statistics from 1850 to 1894 are listed in the 1960 *Nebraska Blue Book*. Seasonal means crop season, which is from April 1 to Sept. 30.

Climate of Nebraska (Cont'd.)

Annual and Seasonal Precipitation, 1895-2007 (Cont'd.)

	Panhandle		North Central		Northeast		Central	
Year	Annual	Crop Season	Annual	Crop Season	Annual	Crop Season	Annual	Crop Season
1951	21.25	17.87	30.15	25.16	35.55	27.21	27.19	22.95
1952	14.91	11.35	15.83	11.77	25.92	20.60	17.71	13.52
1953	17.12	12.58	21.27	15.04	24.69	17.55	21.16	15.00
1954	14.30	11.25	18.73	14.93	24.54	18.18	18.71	15.26
1955	17.69	14.37	15.93	12.82	17.99	14.60	17.06	14.06
1956	12.92	10.39	15.14	11.47	17.55	14.02	15.25	12.03
1957	20.57	17.25	25.78	20.80	28.98	21.95	29.50	23.97
1958	18.26	15.01	21.45	18.43	22.75	18.62	22.34	18.56
1959	15.75	11.87	19.96	14.53	30.28	21.41	23.65	17.03
1960	13.75	10.27	21.55	17.09	29.07	22.97	24.91	18.90
1961	17.20	14.15	19.03	15.49	22.74	17.09	23.20	18.93
1962	18.98	16.14	28.00	24.19	27.71	22.00	28.58	23.52
1963	16.96	13.15	20.90	17.45	23.25	19.93	20.48	17.02
1964	11.46	9.91	19.17	16.84	27.12	23.38	21.17	17.64
1965	21.67	18.40	24.01	20.92	31.64	27.71	31.45	27.05
1966	16.16	13.15	18.53	15.57	22.75	17.84	19.50	15.74
1967	18.99	16.48	18.73	16.15	23.22	20.34	23.56	20.95
1968	16.92	14.42	21.06	16.79	25.26	16.86	23.86	18.27
1969	15.63	11.27	17.89	12.28	25.51	17.69	24.30	16.34
1970	14.79	11.46	17.62	13.72	23.95	17.01	19.36	15.72
1971	18.41	14.97	23.99	17.04	25.82	16.63	24.61	16.42
1972	17.18	14.26	22.15	17.69	29.81	23.80	23.20	18.51
1973	20.45	14.66	25.46	18.49	30.42	19.42	30.75	21.26
1974	11.88	8.96	14.79	12.18	18.10	14.78	16.49	12.69
1975	14.09	10.47	17.42	12.60	24.62	17.92	23.09	17.36
1976	13.27	10.85	16.69	13.94	16.52	12.69	20.91	17.32
1977	18.81	14.94	30.87	22.55	32.32	23.22	34.95	26.59
1978	18.26	14.41	22.01	17.69	23.43	19.13	23.58	18.61
1979	18.23	13.19	24.79	17.59	30.54	18.75	25.98	17.09
1980	13.10	9.30	15.53	10.84	17.09	13.36	15.67	10.69
1981	17.13	13.84	22.72	16.51	23.50	16.22	26.59	19.63
1982	21.23	16.88	25.80	17.12	34.19	21.79	27.81	18.97
1983	18.26	13.23	27.05	19.86	30.45	18.63	25.65	17.25
1984	15.35	11.76	24.40	17.32	36.34	24.86	31.33	20.86
1985	14.65	10.92	21.03	17.15	26.35	21.95	27.73	23.64
1986	20.11	15.75	27.16	21.94	32.72	24.64	25.02	19.41
1987	18.09	12.83	24.18	14.88	26.40	16.43	28.34	17.14
1988	16.92	14.49	23.41	20.01	20.70	17.55	22.13	19.55
1989	11.92	9.62	13.44	10.78	17.20	13.57	20.38	17.75
1990	16.59	11.80	21.11	15.63	25.60	18.88	22.79	15.96
1991	16.70	13.91	21.41	16.21	26.24	18.18	23.03	15.91
1992	17.11	12.14	24.34	17.56	33.76	22.45	24.94	16.70
1993	21.80	15.54	28.72	22.93	35.72	29.29	34.02	28.06
1994	14.07	8.27	22.79	17.70	27.12	21.62	23.29	17.46
1995	20.48	16.61	28.77	22.19	32.24	24.26	24.33	19.30
1996	18.59	15.65	23.20	19.22	27.52	21.14	26.34	22.00
1997	18.13	14.64	21.47	17.33	22.17	17.24	23.29	17.81
1998	20.17	12.92	27.53	18.96	32.91	22.70	24.28	17.06
1999	18.53	17.21	21.24	18.76	27.63	24.26	25.27	22.56
2000	17.34	11.45	19.47	13.67	23.31	15.56	20.36	13.22
2001	16.67	13.42	25.44	20.45	23.63	18.22	28.07	20.49
2002	9.95	7.83	14.74	10.82	20.66	15.60	15.77	11.71
2003	15.53	11.78	17.66	13.80	24.79	19.79	20.44	16.95
2004	16.69	12.60	22.46	17.36	27.86	20.15	25.19	19.06
2005	20.32	16.42	25.82	20.76	28.66	21.76	22.72	18.77
2006	13.97	9.91	19.49	13.90	27.14	19.13	24.21	16.99
2007	15.36	10.78	29.06	19.92	37.59	24.43	33.26	24.65

Climate of Nebraska (Cont'd.)

Annual and Seasonal Precipitation, 1895-2007 (Cont'd.)

	East Central		Southwest		South Central		Southeast	
Year	Annual	Crop Season	Annual	Crop Season	Annual	Crop Season	Annual	Crop Season
1895	21.77	18.91	18.20	14.60	19.99	17.07	25.28	21.46
1896	34.42	28.38	21.85	17.42	26.32	21.69	35.53	28.92
1897	26.29	18.27	22.63	14.88	25.58	17.20	26.79	18.92
1898	26.77	20.12	20.04	18.13	22.46	19.38	30.16	22.39
1899	24.67	19.86	16.81	13.02	19.58	15.93	27.54	21.95
1900	30.64	23.50	20.96	18.44	26.77	22.65	34.01	26.61
1901	25.70	18.41	20.25	15.15	25.23	18.74	26.83	18.99
1902	43.17	34.28	23.88	18.89	31.26	24.52	42.13	33.04
1903	35.73	29.71	23.41	19.03	27.90	22.50	40.00	33.05
1904	28.09	23.43	22.34	19.76	26.28	22.47	31.47	26.94
1905	39.77	30.78	30.64	25.64	33.48	27.32	39.60	29.87
1906	28.83	20.14	24.59	17.96	26.39	18.98	29.80	21.01
1907	23.98	19.86	17.68	15.49	20.95	18.40	26.08	19.91
1908	35.61	28.12	23.20	18.91	27.51	22.12	35.94	28.25
1909	33.49	21.43	21.19	15.31	26.44	17.79	34.57	21.56
1910	19.09	17.34	16.37	13.80	16.72	14.84	22.56	20.69
1911	28.90	19.56	19.07	13.64	21.64	14.21	29.21	19.02
1912	23.76	15.94	21.48	15.04	22.73	15.56	27.59	18.98
1913	29.06	19.10	19.59	13.24	23.07	15.37	29.10	18.49
1914	25.45	20.24	18.88	15.29	21.68	17.55	26.65	20.77
1915	43.63	34.09	33.45	26.56	36.93	28.89	46.27	36.62
1916	22.88	18.27	17.42	14.04	18.97	15.69	24.47	19.14
1917	24.92	21.58	18.67	16.07	21.03	18.70	23.92	20.68
1918	29.11	19.08	20.25	13.78	22.85	14.36	30.68	19.76
1919	33.64	22.34	23.02	16.75	27.75	19.39	33.45	22.57
1920	29.47	22.05	21.34	16.74	25.80	19.59	30.87	23.14
1921	26.16	21.64	18.44	15.40	20.67	17.73	27.32	22.91
1922	21.90	13.63	14.09	10.59	19.08	13.65	26.09	16.92
1923	31.08	26.57	28.92	24.11	31.65	26.77	35.68	30.04
1924	26.12	18.88	17.42	11.70	21.59	15.10	29.21	21.63
1925	26.09	19.93	18.88	14.82	22.69	17.96	28.91	22.87
1926	26.41	20.22	19.12	14.49	21.06	15.89	28.68	21.32
1927	27.47	20.64	22.53	17.93	23.96	19.60	31.60	24.36
1928	30.52	19.52	20.09	13.92	26.56	17.80	33.60	21.64
1929	26.38	18.95	21.92	16.80	24.67	18.49	28.17	20.11
1930	29.89	21.58	26.71	21.10	29.24	21.95	29.68	21.41
1931	31.03	20.34	16.03	9.82	21.50	13.82	33.15	21.83
1932	29.18	21.99	17.22	14.68	19.20	14.67	26.41	20.03
1933	22.78	17.00	20.50	17.88	20.58	16.96	23.18	17.37
1934	15.85	9.04	13.74	10.33	13.20	8.82	19.36	11.82
1935	27.75	21.77	22.05	19.58	22.71	19.50	31.11	24.05
1936	15.02	10.79	14.60	12.28	13.31	11.38	18.42	14.16
1937	21.16	15.35	16.12	12.12	18.82	14.35	21.33	15.02
1938	26.69	21.97	18.39	15.86	20.90	18.31	29.74	24.46
1939	18.84	14.13	14.45	10.48	16.64	13.34	21.66	15.56
1940	22.40	13.86	16.70	10.73	17.36	10.51	23.92	14.69
1941	26.94	18.82	22.77	18.20	28.05	22.59	35.46	23.75
1942	24.96	19.12	25.06	20.34	27.85	23.08	31.59	24.41
1943	21.51	17.72	12.55	10.16	16.59	14.86	25.44	21.52
1944	35.53	28.36	23.41	16.93	30.31	22.85	39.74	30.48
1945	32.95	27.89	19.19	17.31	21.61	18.44	31.22	25.23
1946	28.50	18.68	24.93	15.92	30.34	19.93	29.52	19.08
1947	30.23	23.55	19.20	15.54	22.21	17.21	29.40	22.83
1948	29.36	19.87	17.90	13.99	19.59	14.08	29.41	18.36
1949	29.06	21.51	22.71	16.07	26.34	20.12	36.29	28.35
1950	26.14	20.49	18.88	16.45	22.85	19.25	32.48	26.43
1951	36.90	28.29	26.26	23.49	30.67	26.03	45.31	36.49
1952	29.45	22.35	14.60	11.13	20.71	16.32	32.52	24.00
1953	21.38	14.31	16.60	11.31	21.79	14.40	22.68	15.06
1954	25.44	19.66	12.33	10.16	18.43	15.22	30.91	25.22

Climate of Nebraska (Cont'd.)

Annual and Seasonal Precipitation, 1895-2007 (Cont'd.)

	East Central		Southwest		South Central		Southeast	
Year	Annual	Crop Season	Annual	Crop Season	Annual	Crop Season	Annual	Crop Season
1955	18.63	15.38	14.66	12.15	17.81	14.89	19.68	15.31
1956	19.41	15.63	14.31	11.41	15.80	11.39	21.32	16.97
1957	33.53	24.84	23.22	19.21	29.66	24.04	33.43	23.98
1958	28.37	23.44	22.09	17.57	23.74	17.68	34.68	28.57
1959	34.77	25.77	18.60	13.12	23.97	17.29	34.85	24.59
1960	31.28	24.70	17.41	11.00	26.14	19.45	32.62	24.37
1961	28.49	19.67	18.88	15.67	25.83	21.12	36.66	26.13
1962	28.35	21.43	26.12	22.81	27.01	21.37	29.69	20.69
1963	24.46	19.58	18.68	15.43	20.63	17.34	27.30	22.33
1964	30.16	26.02	15.39	12.95	18.75	15.92	26.87	22.29
1965	39.98	33.16	27.03	22.98	36.04	29.65	35.92	29.09
1966	21.59	17.49	18.57	15.50	17.49	13.99	20.42	16.52
1967	29.84	25.42	18.73	17.29	24.12	21.66	29.90	24.33
1968	31.71	22.36	15.39	12.75	24.08	18.53	30.60	22.78
1969	26.94	18.85	20.14	14.89	29.18	21.67	33.09	23.96
1970	25.60	19.02	14.08	10.88	19.81	17.12	28.08	21.80
1971	27.45	16.69	23.31	17.59	24.72	16.68	27.23	15.88
1972	32.52	23.77	18.66	15.11	24.46	19.27	29.95	20.73
1973	38.95	23.57	24.22	18.21	32.65	21.92	46.43	28.06
1974	20.54	15.04	14.69	11.97	15.67	12.11	18.88	13.23
1975	24.85	17.45	18.69	14.88	24.36	19.35	28.16	20.26
1976	19.07	14.17	15.72	12.75	17.99	15.16	23.25	17.91
1977	36.45	26.83	23.29	17.87	27.85	22.07	37.61	28.94
1978	29.04	23.49	15.17	11.08	21.02	16.98	33.11	26.78
1979	29.56	16.83	22.03	15.61	29.18	20.04	32.70	18.40
1980	23.41	16.97	17.05	12.45	19.38	13.34	24.98	15.04
1981	27.65	19.52	24.95	18.71	30.02	23.48	30.70	21.85
1982	39.06	29.08	23.60	17.70	26.72	19.47	35.86	27.16
1983	32.20	18.96	18.96	12.68	25.62	17.18	31.81	19.89
1984	36.59	24.13	21.10	14.28	24.51	15.34	34.89	24.17
1985	29.88	24.21	18.87	14.91	26.07	21.55	30.26	23.56
1986	38.34	28.48	17.96	13.71	22.46	16.57	38.70	28.81
1987	32.59	21.81	22.32	15.13	29.23	17.91	37.80	26.14
1988	20.15	16.98	20.32	17.90	20.53	18.37	18.38	15.53
1989	22.26	18.49	16.17	13.87	20.93	18.75	24.49	20.84
1990	27.31	19.97	17.13	11.45	23.17	17.23	26.57	18.45
1991	30.32	20.01	21.19	15.64	21.57	15.64	26.61	16.25
1992	31.87	20.95	22.10	15.53	24.70	15.97	37.17	24.81
1993	39.71	32.59	27.05	20.43	38.64	31.48	48.25	39.54
1994	26.82	20.26	19.24	13.22	23.47	16.77	26.32	19.40
1995	24.87	18.93	20.31	16.48	23.36	19.51	29.21	23.25
1996	30.03	24.76	24.70	22.91	32.39	27.81	34.65	28.73
1997	26.45	19.06	19.00	14.07	22.78	15.01	30.59	20.82
1998	34.37	24.37	18.20	13.09	22.63	15.48	32.87	21.45
1999	30.48	26.16	21.72	19.95	25.00	23.10	27.40	23.39
2000	23.83	15.77	17.43	10.09	22.76	13.64	24.76	16.69
2001	28.07	20.49	20.06	15.61	25.95	19.81	38.86	29.96
2002	23.33	17.16	11.64	8.58	15.79	10.39	23.38	15.88
2003	25.48	19.61	16.67	13.56	19.89	14.67	28.52	21.14
2004	27.09	17.49	23.17	17.96	24.58	17.33	27.24	18.75
2005	26.13	18.19	20.86	15.00	23.02	16.40	27.18	19.03
2006	29.75	22.00	18.94	13.49	25.40	18.29	28.95	22.20
2007	39.53	27.32	25.61	20.60	31.31	23.35	39.41	26.76

Plant and Animal Life

Nebraska's most abundant native vegetation is grass. In eastern Nebraska, tall prairie grasses flourish, especially bluestem. In the west, the dominant types are perennial short grasses, such as grama and buffalo grass.

When settlers first came to Nebraska, only 3 percent of the land was covered with forests. In 1872, Nebraska became the first state to establish Arbor Day, and tree planting has been an important part of Nebraska's conservation efforts ever since.[20] Ash, box elder, cottonwood, locust, oak, walnut, elm and willow trees are common to eastern and central Nebraska. In the western part of the state, pine and cedar are prevalent varieties.

Uniquely Nebraskan

Sandhill Cranes[21]

Each spring, the Platte River valley in central Nebraska comes alive with the sights and sounds of nearly half a million sandhill cranes. It is the largest gathering of sandhill cranes in the world.

The cranes stop at the Platte River during their annual northern migration from their wintering areas in the southern United States and Mexico. The birds concentrate between Kearney and Grand Island, the last area of the Platte still offering the open channels and sandbars they need. Thousands of people visit the area each year to view the concentration of cranes.

The birds begin arriving in central Nebraska in mid-February, and numbers peak around mid- to late March. After April 1, the cranes move out steadily until about mid-April, when the last of them head to breeding grounds in Canada, Alaska and Siberia.

The cranes come to the Platte to build up nutrient reserves that will sustain them through the summer nesting season. They eat waste grain from area cornfields and invertebrates plucked from wet meadows near the river. While in the fields and meadows, the cranes engage in animated dances, probably courtship rituals.

[20] For more information about Arbor Day, see Page 23.
[21] Source: Nebraska Game and Parks Commission.

Native shrubs include wild plums and chokecherries, found throughout Nebraska. A variety of flowers, such as goldenrod, larkspur, columbine, wild roses and sunflowers, thrive throughout the state.

Before white settlers arrived in Nebraska, buffalo and beaver populations were significant. Today, buffalo are never seen outside game preserves. The beaver population, after being diminished by trappers, has become more plentiful in recent years. Other animals in Nebraska include white-tail and mule deer, elk, bighorn sheep, antelope, bobcats, foxes, coyotes, badgers, squirrels, prairie dogs, muskrats, skunks, raccoons, rabbits and opossums.

Game birds, especially pheasants, grouse, ducks, geese and quail, are plentiful in Nebraska. The state's waters yield a variety of fish, including bass, carp, catfish, crappie, perch, pike, trout and walleye. The Platte River and lakes in the Sandhills serve as "rest stops" for many migratory birds, including the famous Sandhill cranes (see previous page).

Another migration rest stop of international significance is the Rainwater Basin district in south-central Nebraska. Within this district, the U.S. Fish and Wildlife Service manages more than 23,000 acres of wetlands and adjacent tall-grass prairie to provide habitat for migratory birds and resident wildlife.[22]

ECONOMY[23]

Agriculture

Nebraska's economy revolves around its agriculture industry. In 2009, 93 percent of the state's land — 45.6 million acres — was farm and ranch land.

Producers have taken advantage of the state's fertile soil, abundant water, intensive cultivation and advanced farming methods to produce record-high crop yields in recent years. In 2008, gross cash receipts from farm marketing totaled over $17 billion, and Nebraska had 47,400 farms.

Crop Production[24]

Nebraska is a national leader in crop production. In 2009, Nebraska led the nation in production of Great Northern beans, grown in the western one-third of the state, and in popcorn production. The state ranked second in pinto bean and proso millet production; third in grain sorghum and corn for grain production; fourth in all dry edible bean production; fifth in soybean production; sixth in winter wheat and all hay production; and seventh in alfalfa hay production. Sugar beets and potatoes also play a significant role in the state's agricultural economy.

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[22] For more information about the Rainwater Basin Wetland Management District and national wildlife refuges in Nebraska, see Page 150.

[23] Information for this section compiled from the following sources: Nebraska Department of Agriculture; Nebraska Department of Economic Development; Nebraska Department of Labor; Bureau of Economic Analysis and Bureau of the Census, U.S. Department of Commerce; Bureau of Business Research, University of Nebraska-Lincoln; *Fortune* magazine.

[24] See Page 467 for a complete set of Nebraska's rankings in agriculture production.