

16 Ohio: Cooperative Stations

**Ashland 2 SW** *Ashland County* Elevation: 1,263 ft. Latitude: 40° 50' N Longitude: 82° 21' W

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
Mean Maximum Temp. (°F)	32.3	36.1	46.5	59.2	70.2	78.9	83.1	81.0	74.4	62.3	48.8	37.7	59.2
Mean Temp. (°F)	23.9	27.1	36.3	47.5	58.5	67.4	71.5	69.3	62.7	51.2	40.0	29.8	48.8
Mean Minimum Temp. (°F)	15.5	18.0	26.1	35.7	46.6	55.8	59.8	57.6	50.9	40.0	31.2	21.8	38.3
Extreme Maximum Temp. (°F)	65	69	80	87	90	100	99	96	94	85	76	74	100
Extreme Minimum Temp. (°F)	-23	-16	-15	6	25	31	39	37	29	20	0	-18	-23
Days Maximum Temp. ≥ 90°F	0	0	0	0	0	2	5	2	1	0	0	0	10
Days Maximum Temp. ≤ 32°F	16	11	4	0	0	0	0	0	0	0	2	10	43
Days Minimum Temp. ≤ 32°F	29	25	23	12	1	0	0	0	1	7	18	27	143
Days Minimum Temp. ≤ 0°F	5	3	1	0	0	0	0	0	0	0	0	1	10
Heating Degree Days (base 65°F)	1,268	1,064	883	525	235	57	12	23	133	427	744	1,086	6,457
Cooling Degree Days (base 65°F)	0	0	1	5	35	133	221	159	63	5	0	0	622
Mean Precipitation (in.)	2.36	2.10	2.80	3.55	4.05	3.96	4.22	4.09	3.40	2.57	3.17	2.66	38.93
Days With ≥ 0.1" Precipitation	6	5	7	8	9	8	7	6	6	6	7	7	82
Days With ≥ 1.0" Precipitation	0	0	0	1	1	1	1	1	1	0	1	0	7
Mean Snowfall (in.)	10.0	7.9	5.4	1.5	trace	0.0	0.0	0.0	0.0	trace	2.1	7.1	34.0
Days With ≥ 1.0" Snow Depth	16	13	5	1	0	0	0	0	0	0	2	9	46

**Barnesville** *Belmont County* Elevation: 1,240 ft. Latitude: 39° 59' N Longitude: 81° 09' W

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
Mean Maximum Temp. (°F)	34.5	38.2	48.8	60.4	70.3	78.3	82.1	80.8	74.5	62.8	50.8	40.0	60.1
Mean Temp. (°F)	25.8	28.8	38.3	48.7	58.8	67.2	71.4	69.8	63.2	51.5	41.5	31.8	49.7
Mean Minimum Temp. (°F)	17.0	19.2	27.8	36.9	47.2	56.1	60.6	58.8	51.8	40.0	32.2	23.6	39.3
Extreme Maximum Temp. (°F)	71	72	82	87	90	96	100	96	94	83	77	75	100
Extreme Minimum Temp. (°F)	-23	-20	-5	13	22	31	42	38	28	16	0	-17	-23
Days Maximum Temp. ≥ 90°F	0	0	0	0	0	1	2	2	1	0	0	0	6
Days Maximum Temp. ≤ 32°F	14	10	3	0	0	0	0	0	0	0	1	8	36
Days Minimum Temp. ≤ 32°F	28	24	22	11	2	0	0	0	0	6	16	25	134
Days Minimum Temp. ≤ 0°F	4	2	0	0	0	0	0	0	0	0	0	1	7
Heating Degree Days (base 65°F)	1,208	1,015	821	491	221	51	9	18	118	417	698	1,022	6,089
Cooling Degree Days (base 65°F)	0	0	2	8	37	136	237	185	69	5	0	0	679
Mean Precipitation (in.)	3.01	2.69	3.53	3.85	4.35	4.88	4.73	3.90	3.54	2.97	3.69	3.20	44.34
Days With ≥ 0.1" Precipitation	7	6	8	9	9	8	8	7	6	6	8	8	90
Days With ≥ 1.0" Precipitation	0	0	1	1	1	1	1	1	1	1	1	0	9
Mean Snowfall (in.)	11.6	7.6	5.1	1.2	trace	0.0	0.0	trace	0.0	trace	1.7	5.7	32.9
Days With ≥ 1.0" Snow Depth	14	12	5	0	0	0	0	0	0	0	2	7	40

**Bellefontaine** *Logan County* Elevation: 1,184 ft. Latitude: 40° 21' N Longitude: 83° 46' W

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
Mean Maximum Temp. (°F)	32.3	37.1	48.1	60.6	71.5	79.6	83.3	81.5	75.9	63.5	49.7	38.2	60.1
Mean Temp. (°F)	24.6	28.6	38.5	49.8	60.8	69.2	73.0	71.3	64.9	53.2	41.3	30.8	50.5
Mean Minimum Temp. (°F)	16.9	20.0	29.0	39.0	50.0	58.7	62.6	61.0	53.9	42.8	33.0	23.2	40.8
Extreme Maximum Temp. (°F)	64	71	82	87	90	101	99	101	95	85	77	71	101
Extreme Minimum Temp. (°F)	-27	-13	-12	9	25	37	45	39	30	17	5	-22	-27
Days Maximum Temp. ≥ 90°F	0	0	0	0	0	2	4	2	1	0	0	0	9
Days Maximum Temp. ≤ 32°F	15	11	3	0	0	0	0	0	0	0	2	9	40
Days Minimum Temp. ≤ 32°F	28	24	21	8	1	0	0	0	0	5	16	25	128
Days Minimum Temp. ≤ 0°F	4	2	0	0	0	0	0	0	0	0	0	1	7
Heating Degree Days (base 65°F)	1,245	1,022	814	457	180	35	4	11	94	370	704	1,054	5,990
Cooling Degree Days (base 65°F)	0	0	1	6	54	169	265	217	94	11	0	0	817
Mean Precipitation (in.)	2.25	1.98	2.75	3.56	3.95	3.97	3.92	3.42	2.67	2.44	3.06	2.95	36.92
Days With ≥ 0.1" Precipitation	6	5	7	8	8	7	7	6	5	6	7	7	79
Days With ≥ 1.0" Precipitation	0	0	0	1	1	1	1	1	1	0	0	1	7
Mean Snowfall (in.)	6.9	4.1	1.7	0.4	trace	0.0	0.0	0.0	0.0	0.2	0.8	3.7	17.8
Days With ≥ 1.0" Snow Depth	11	6	2	0	0	0	0	0	0	0	0	4	23

**Bowling Green WWTP** *Wood County* Elevation: 672 ft. Latitude: 41° 23' N Longitude: 83° 37' W

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
Mean Maximum Temp. (°F)	31.3	35.4	46.5	59.6	71.7	81.1	84.6	82.2	76.0	63.5	49.2	37.2	59.8
Mean Temp. (°F)	23.8	27.4	37.0	48.4	60.0	69.6	73.3	70.8	64.1	52.4	40.7	29.9	49.8
Mean Minimum Temp. (°F)	16.2	19.3	27.5	37.2	48.3	58.2	61.9	59.4	52.2	41.3	32.2	22.6	39.7
Extreme Maximum Temp. (°F)	64	71	80	88	92	104	101	98	96	88	78	70	104
Extreme Minimum Temp. (°F)	-20	-13	-7	8	25	36	41	38	30	21	6	-19	-20
Days Maximum Temp. ≥ 90°F	0	0	0	0	1	4	6	3	1	0	0	0	15
Days Maximum Temp. ≤ 32°F	16	12	4	0	0	0	0	0	0	0	1	9	42
Days Minimum Temp. ≤ 32°F	29	25	23	10	1	0	0	0	0	5	17	26	136
Days Minimum Temp. ≤ 0°F	4	2	0	0	0	0	0	0	0	0	0	1	7
Heating Degree Days (base 65°F)	1,272	1,056	860	498	200	33	4	14	107	393	722	1,080	6,239
Cooling Degree Days (base 65°F)	0	0	1	7	49	177	269	197	80	9	0	0	789
Mean Precipitation (in.)	1.73	1.59	2.40	3.27	3.53	3.52	3.70	3.28	2.60	2.50	2.69	2.33	33.14
Days With ≥ 0.1" Precipitation	5	4	6	8	7	7	7	6	5	6	6	6	73
Days With ≥ 1.0" Precipitation	0	0	0	0	1	1	1	1	1	0	0	0	5
Mean Snowfall (in.)	7.2	5.4	3.1	0.7	trace	0.0	0.0	0.0	0.0	trace	0.7	4.8	21.9
Days With ≥ 1.0" Snow Depth	14	12	4	0	0	0	0	0	0	0	1	6	37

## OHIO

**PHYSICAL FEATURES AND GENERAL CLIMATE.** The climate of Ohio is remarkably varied. Less than one-half of its area is occupied by typical plains, while most of eastern and much of southern Ohio is hilly. Topography ranges in elevation from 430 feet above sea level at the junction of the Great Miami and Ohio Rivers up to 1,550 feet on a summit near Bellefontaine. In addition to this high point there are innumerable other hills which rise above 1,400 feet (mean sea level). These are located mainly along the dividing line between the Ohio River and Lake Erie drainage basins. Large areas in the State have elevations above 1,000 feet. An extensive area in northwestern Ohio is occupied by a flat lake plain — once the bottom of glacial Lake Maumee which was much larger than the present Lake Erie. The greater part of eastern Ohio is within the Allegheny Plateau, an unglaciated area consisting of picturesque hills, many of which rise above 1,300 feet and comprise many winding rivers and streams.

The Ohio River, which forms the southern and southeastern boundaries of Ohio, and its tributaries drain the greater portion of the State. A number of streams drain northward into Lake Erie. Although this area comprises nearly a third of the State, the divide between the two drainages is only 20 to 40 miles from the lake shore for a distance of more than 100 miles until it dips south of the arrowhead-shaped Maumee Basin. The largest streams in this region are the Maumee, Sandusky, and Cuyahoga Rivers. Principal tributaries flowing southward into the Ohio River include the Muskingum in the east, the Scioto in the central section, and the Great Miami in the west. A small portion in the west-central region drains westward into the Wabash River basin of Indiana.

Located west of the Appalachian Mountains, Ohio has a climate essentially continental in nature, characterized by moderate extremes of heat and cold, and wetness and dryness. Summers are moderately warm and humid, with occasional days when temperatures exceed 100F.; winters are reasonably cold, with an average of about 2 days of subzero weather; and autumns are predominately cool, dry, and invigorating. Spring is the wettest season and vegetation is lush and profuse.

**PRECIPITATION.** Annual precipitation is slightly in excess of the national average and is well distributed, though with peaks in early spring and summer. In spite of the relatively small range in latitude and the compact shape of Ohio, rainfall varies considerably in amount and seasonal distribution. This is accounted for not only by the presence of Lake Erie on the north, but also by its topography and proximity to rain producing storm paths. Annual precipitation averages about 38 inches, being most generous in spring (about four inches in April) and least in the fall (about 2.5 inches in October). Greatest amounts are measured in the southwest where Wilmington has an average of 44.36 inches; the lake shore is driest, with Gibraltar Island having a normal of only 29.06 inches.

The southern half of the State is visited more frequently by productive rainstorms which, together with the general roughness of terrain, accounts for the larger total precipitation. The lifting of moist air masses over the hills tends to increase the yield of rainfall, especially in winter and spring. There is a marked tendency during the cold season for northeastern counties to receive snowfall amounts substantially in excess of those measured elsewhere. Northerly winds have a long fetch across Lake Huron and the widest part of Lake Erie, thus picking up moisture and heat from the lakes. This moisture is then forced to condense as the air is lifted abruptly over the divide a short distance from the lake. Average snowfall ranges from 60 inches in parts of Lake and adjoining counties down to 16 inches or less along the Ohio River.

**TEMPERATURE.** The normal annual temperature for the State ranges from 49.6 F. at Hiram in Portage County up to 56.9 F. at Portsmouth on the Ohio River. Variations over the State are due mainly to differences in latitude and topography, but the immediate lake shore area experiences a moderating effect due to its proximity to a large body of water. Widest temperature ranges are found generally among the eastern hills. In an average year, 90 heat may be expected about 20 times in summer with 100F. or more once or twice. Readings of zero or lower are generally to be expected on two to four days each winter, and these are just as likely to occur in the south as the north. However, one winter out of six or eight will pass without experiencing zero readings anywhere in the State.

**OTHER CLIMATIC ELEMENTS.** The growing season, as defined by the period 32 F. or higher, ranges widely because of latitude and proximity to Lake Erie. The longest is about 200 days on the lake shore and the shortest is in the northeastern valleys within the Ohio River drainage. Dates of the average last freezing temperature in spring range from April 15 to May 18 and the mean first freeze date in fall varies from September 30 to November 6, the latter being on the western lake shore.

Damaging windstorms are mostly associated with heavy thunderstorms or line squalls. Three or four tornadoes may be expected to strike in Ohio each year. Most tornadoes, however, are of limited effect having paths that are short and narrow.

Annual Extreme Maximum Temperature					
Highest			Lowest		
Rank	Station Name	°F	Rank	Station Name	°F
1	Chilo Meldahl Lock & Dam	<b>107</b>	1	Washington Court House	97
1	Cincinnati Fernbank	<b>107</b>	2	Painesville 4 NW	98
3	Chillicothe Mound City	105	3	Centerburg 2 SE	99
3	Cincinnati Lunken Airport	105	3	Wilmington 3 N	99
3	Gallipolis	105	5	Ashland 2 SW	100
3	Hoytville 2 NE	105	5	Barnesville	100
3	Napoleon	<b>105</b>	5	Chardon	100
3	Tiffin	105	5	Columbus Valley Crossing	100
9	Bowling Green WWTP	104	5	Dorset	100
9	Cleveland Hopkins Intl Arpt	104	5	Fredericktown 4 S	100
9	Dayton MCD	104	5	Hannibal Lock & Dam	<b>100</b>
9	Defiance	104	5	Hillsboro	100
9	Elyria 3 E	104	5	Hiram	100
9	Findlay Airport	104	5	Lima WWTP	100
9	Findlay WPC	104	5	Mansfield 5 W	100
9	Fremont	<b>104</b>	5	Newark Water Works	100
9	Greenville Water Plant	104	5	Put-In-Bay	100
9	Kenton	104	5	Springfield New Water Works	100
9	Milford	104	5	Youngstown Municipal Airport	100
9	Montpelier	104	20	Akron-Canton Regional Arpt	101
9	Oberlin	104	20	Bellefontaine	101
9	Paulding	104	20	Cadiz	101
9	Portsmouth Sciotoville	104	20	Canfield 1 S	<b>101</b>
9	Toledo Express Airport	104	20	Circleville	101
9	Upper Sandusky	104	20	Columbus-Port Columbus Intl Arpt	101

Annual Mean Maximum Temperature					
Highest			Lowest		
Rank	Station Name	°F	Rank	Station Name	°F
1	Gallipolis	66.8	1	Chardon	57.2
2	Portsmouth Sciotoville	65.3	2	Put-In-Bay	57.6
3	Waverly	65.2	3	Dorset	57.8
4	Cincinnati Fernbank	<b>64.6</b>	4	Sandusky	58.2
4	Cincinnati Lunken Airport	64.6	5	Hiram	58.3
4	Marietta WWTP	64.6	5	Youngstown Municipal Airport	58.3
7	Chilo Meldahl Lock & Dam	64.4	7	Findlay Airport	58.7
8	Chillicothe Mound City	63.8	7	Mansfield Lahm Municipal Arpt	58.7
8	Milford	63.8	7	Wooster Exp Station	58.7
10	Ripley Exp Farm	63.6	10	Fremont	58.8
11	Jackson 3 NW	<b>63.5</b>	10	Mansfield 5 W	58.8
11	McConnelsville Lock 7	63.5	10	Montpelier	58.8
13	Cambridge	63.4	10	Norwalk WWTP	58.8
13	Circleville	63.4	14	Bucyrus	58.9
15	Columbus Valley Crossing	63.1	14	Painesville 4 NW	58.9
16	Dayton MCD	63.0	16	Cleveland Hopkins Intl Arpt	59.0
17	New Lexington 2 NW	62.9	16	Toledo Express Airport	59.0
17	Westerville	62.9	18	Findlay WPC	59.1
19	Franklin	62.7	19	Akron-Canton Regional Arpt	59.2
19	Irwin	<b>62.7</b>	19	Ashland 2 SW	59.2
21	Hannibal Lock & Dam	<b>62.5</b>	19	Centerburg 2 SE	59.2
22	Mineral Ridge Water Works	62.2	19	Paulding	59.2
22	Xenia 6 SSE	62.2	23	Hoytville 2 NE	59.3
24	Newark Water Works	62.1	24	Coshocton Agr Res Station	59.4
25	Coshocton WPC Plant	62.0	25	Defiance	59.5