U. S. DEPARTMENT OF COMMERCE, ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
IN COOPERATION WITH THE OHIO AGRICULTURAL RESEARCH AND DEVELOPMENT CENTER
AND THE OHIO DEPARTMENT OF NATURAL RESOURCES - DIVISION OF WATER
CLIMATOGRAPHY OF THE UNITED STATES NO. 20-33-29

CLIMATOLOGICAL SUMMARY

LATITUDE 40°15'N
LONGITUDE 81°52'W
ELEV. (GROUND) 760 Ft.

STATION: Coshocton, Ohio

MEANS AND EXTREMES FOR PERIOD 1936-1966

MONTH	TEMPERATURE (°F) MEANS: DAILY MAXIMUM	DAILY MINIMUM	MONTHLY	EXTREMES: RECORD HIGHEST	YEAR	DAY	RECORD LOWEST	YEAR	DAY	MEAN DEGREE DAYS **	MEAN NUMBER OF DAYS: MAX. 90° AND ABOVE	MAX. 32° AND BELOW	MIN. 32° AND BELOW	MIN. 0° AND BELOW	PRECIPITATION TOTALS (INCHES): MEAN	GREATEST MONTHLY	YEAR	GREATEST DAILY	YEAR	DAY	SNOW, SLEET: MEAN	MAXIMUM MONTHLY	YEAR	GREATEST DAILY	YEAR	DAY	MEAN NUMBER OF DAYS: .01 or MORE	.10 or MORE	.50 or MORE	1.00 or MORE	MONTH
JAN	38.3	21.0	29.6	75	50	25	-20*	63	28	1090.	0	9	25	2	3.25	11.59	37	2.99	52	26	6.8	20.3	48	9.5	48	24	12	7	1.9	.5	JAN
FEB	41.4	22.1	31.7	72*	61	24	-20	51	3	936.	0	5	23	1	2.70	5.80	56	1.75	48	13	6.2	19.0	61	8.5	51	1	11	6	1.7	.3	FEB
MAR	51.0	29.2	40.1	86	50	27	-3	60	8	769.	0	1	20	0	3.86	8.49	64	3.50	64	9	4.9	16.3	60	12.0	54	1	12	8	2.3	.6	MAR
APR	63.7	38.7	51.2	90*	54	21	11	64	1	421.	0	0	9	0	3.91	6.53	61	2.24	40	19	.4	3.5	53	3.5	53	18	13	8	2.4	.7	APR
MAY	75.3	48.7	62.0	95	36	10	24	57	6	154.	1	0	0	0	3.99	10.84	43	5.00	43	30	.0	.0	36	.0	0	0	12	8	2.5	.7	MAY
JUNE	83.4	57.7	70.5	103	52	26	31	45	6	23.	6	0	0	0	4.52	8.97	37	3.00	57	24	.0	.0	36	.0	0	0	11	7	3.3	1.2	JUNE
JULY	86.2	60.9	73.5	105	36	14	41	63	10	4.	9	0	0	0	4.32	8.03	61	3.59	41	7	.0	.0	36	.0	0	0	10	7	3.0	1.2	JULY
AUG	85.2	59.2	72.2	102*	53	31	39	65	29	11.	7	0	0	0	3.26	7.42	36	4.01	39	2	.0	.0	36	.0	0	0	8	5	2.4	.8	AUG
SEPT	79.0	52.0	65.5	106	53	3	27*	57	28	89.	3	0	0	0	2.74	10.40	45	3.08	45	23	.0	.0	36	.0	0	0	7	5	1.8	.7	SEPT
OCT	68.2	41.4	54.8	92	51	4	19*	64	11	328.	0	0	5	0	2.43	6.40	59	2.24	59	8	.0	.0	36	.0	0	0	8	5	1.5	.4	OCT
NOV	52.6	31.8	42.2	83	50	1	-5	58	30	682.	0	1	16	0	2.68	5.83	50	2.60	55	16	2.0	21.9	50	8.5	50	25	10	5	1.6	.5	NOV
DEC	40.5	23.4	31.9	71	56	6	-15	51	17	1021.	0	6	24	1	2.50	5.29	51	1.45	64	11	5.2	14.5	51	9.0	44	12	11	5	1.7	.2	DEC
					SEPT				JAN							JAN			MAY			NOV			MAR						
YEAR	63.7	40.5	52.1	106	53	3	-20	63	24	5528.	26	22	122	4	40.16	11.59	37	5.00	43	30	25.5	21.9	50	12.0	54	1	125	76	26.	8.	YEAR

** BASE 65° F *Also on earlier dates, months, or years

NARRATIVE CLIMATOLOGICAL SUMMARY

Coshocton is located in the south central portion of Coshocton County in Ohio's central Hills. Terrain in Coshocton County is rugged and hilly; the elevation of the earth's surface above sea level varies from about 720 to 1260 feet. A map of the physiographic regions of Ohio shows all but the extreme western portion of Coshocton County to be a part of Ohio's glaciated Plateau. Soils within this area are generally thin except in the valleys where most agriculture and manufacturing activities are located. Grazing and mining are important activities in Coshocton County.

The climate of Coshocton is classified as continental. Such a climate is marked by large annual, daily, and day to day variation in temperature. Summers are moderately warm and humid with about 26 days when temperatures exceed 89°F. Winters are reasonably cold and cloudy with an average of 4 days with sub-zero temperatures. Weather changes occur every few days from the passing of cold or warm fronts and their associated centers of high and low pressure.

Normal mean temperature for the year is one and one half degrees above the mean for Ohio's Central Hills. The extreme temperature range (record high minus record low) during the period 1936-66 is 126 degrees. On nights with clear skies and calm winds, the air near the top of hills within Coshocton County becomes cooler and denser than the air at the same height over valleys. These air temperature and density differences cause the cool air to drain down the hills into the valleys. This drainage often results in large differences in surface temperature between valley locations and the tops of hills. Within Coshocton County, daily range in temperature is usually greatest in late summer and least in winter. Coldest month of record during the period 1936-66 is January 1940. In that month, the temperature was above freezing on only 7 days while there were 8 days with sub-zero temperatures. Warmest month of record during the above mentioned period is July 1952. In that month, the temperature failed to reach 90°F on only 9 days while the daily minimum was above 69°F on 8 days. A notable hot spell began on July 8, 1956 and ended on the 14th. During that period, daily highs ranged from 99 to 105°F.

Heating degree days as shown in the above table are a measure of the departure of the mean daily temperature from 65°F. The daily totals are accumulated from July 1 through June 30. At any point during the year, the accumulated degree days can be used as an index of past temperature effect upon power consumption and fuel consumption for heating of homes and businesses.

Taking the number of days between the last freezing temperature (32°F) of spring and the first freezing temperature in fall as the crop-growing season, this season averages 158 days in length. The growing season is 183 days or more in 10% of the years, 168 days or more in 30% of the years, less than 148 days in 30% of the years and less than 133 days in 10% of the years. The occurrence of selected temperatures and the length of the growing season vary greatly within Coshocton County because of the terrain.

PROBABILITY OF FREEZES OCCURRING AS LATE IN THE SPRING OR AS EARLY IN THE FALL AS DATES SHOWN IN THE FOLLOWING TABLE

PERCENT CHANCE OF LATER DATE IN SPRING	TEMPERATURE LEVELS 16°	20°	24°	28°	32°	36°
90	FEB 21	MAR 2	MAR 16	APR 4	APR 13	APR 28
70	MAR 4	MAR 13	MAR 26	APR 11	APR 24	MAY 7
50	MAR 12	MAR 21	APR 2	APR 16	MAY 1	MAY 13
30	MAR 20	MAR 28	APR 9	APR 21	MAY 8	MAY 20
10	MAR 31	APR 8	APR 20	APR 29	MAY 18	MAY 29
PERCENT CHANCE OF EARLIER DATE IN FALL						
10	NOV 17	OCT 29	OCT 22	OCT 5	SEPT 23	SEPT 18
30	NOV 26	NOV 8	OCT 31	OCT 16	OCT 1	SEPT 24
50	DEC 1	NOV 16	NOV 6	OCT 23	OCT 6	SEPT 28
70	DEC 7	NOV 23	NOV 12	OCT 31	OCT 12	OCT 3
90	DEC 15	DEC 3	NOV 21	NOV 11	OCT 20	OCT 9

As is characteristic of continental climates, precipitation in the Coshocton area varies widely from year to year; however, it is normally abundant and well distributed throughout the year with fall being the driest season. The average annual precipitation of 40.16 inches is nearly three inches above the mean for Ohio's Central Hills.

Showers and thundershowers account for most of the rainfall during the growing season. Thunderstorms occur on about 40 days each year. Most of these occur May through August. Snowfall averages about 25 inches a year although during the period 1936-66 as little as 6 inches fell during the winter of 1941-42 and as much as 55 inches fell during the winters of 1950-51 and 1963-64. About 1 of 3 winters will have at least 30 inches of snow. As is typical of much of Ohio, most precipitation during the winter months comes in the form of rain.

Evaporation is greatest during the warm months and is then most critical for agriculture. During the period May through September, potential evaporation exceeds the normal rainfall by about 10 inches. The driest growing season of record during the period 1936-66 is 1963. In that year, the potential evaporation exceeded the rainfall by about 20 inches. When evaporation exceeds rainfall for prolonged periods, a drought may occur; however, severe droughts seldom occur in Coshocton County.

Humidity, cloudiness, sunshine, and wind observations are not recorded at the Coshocton weather observing sites; however, estimates of these variable can be made from observations taken at other locations. Relative humidity, the ratio between the amount of moisture in the air and the amount which could be present without condensation, at the same temperature and pressure, is an important factor in human and animal comfort and in the growth and development of vegetation. Generally, humidity rises and falls inversely with the daily temperature and is lowest in summer and highest in winter. For the year, relative humidity averages 82% at 1 AM, 83% at 7 AM, 60% at 1 PM, and 69% at 7 PM. Cloudiness is greatest in winter and least in summer. This variation is most clearly illustrated by the percentage of possible sunshine which is about 70% in July 35% in December. Due to the terrain of Coshocton County, the occurrence of heavy fog is quite variable. Many valley areas average 30 days or more of heavy fog each year. Such areas are especially susceptible to atmospheric stagnation; however, death from smog is as yet unknown. For the year, the wind near the ground blows most frequently from the southwest, averaging 7 mph during summer and 10 mph in winter.

The tornado, one of the most destructive of all atmospheric storms, is characterized by a violently rotating column of air which is nearly always observable as a "funnel cloud". It frequently leaves great destruction along a narrow path and is usually accompanied by heavy rain and hail, and often by lightning and thunder. Since 1900, 2 such storms have been reported in Coshocton County. During the last decade, Ohio has averages slightly more than 11 tornadoes a year.

December 1967

Marvin E. Miller
ESSA Weather Bureau State Climatologist
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STATION HISTORY

Date	Location (From Post Office)	Elevation (Ft. MSL)	Observer
2/08-10/08	0.6 miles WNW	750	W. J. Jeffries
11/08-10/22	0.6 miles WNW	750	Ada Jeffries
10/22- 2/30	0.5 miles NW	750	G. E. Leonard
3/30- 5/44	0.4 miles NW	750	O. E. Popham
5/44- 5/45	Unknown	Unknown	R. Grace
6/45-12/55	1.0 miles N	750	Employees of Ohio Power Co.
12/55-Present	2.8 miles SW	760	Employees of Coshocton Sewage Plant

AVERAGE TEMPERATURE (°F)

YR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNL
36	22.9	23.0	43.4	46.6	64.6	71.8	76.5	76.2	70.5	55.5	39.1	34.7	52.1
37	36.3	32.0	35.0	49.4	61.4	72.0	74.5	76.0	64.3	53.9	39.8	28.8	52.0
38	30.5	38.8	46.4	54.2	63.0	69.9	76.0	76.5	67.3	57.1	45.0	33.4	54.9
39	35.4	34.8	43.0	48.3	65.1	74.2	74.6	73.7	70.4	57.7	41.6	35.9	54.6
40	17.7	30.2	36.6	47.9	60.2	71.8	74.2	73.6	63.4	55.9	42.4	39.4	51.1
41	31.9	29.0	35.0	56.6	63.8	72.1	75.8	71.4	68.9	59.7	44.9	39.4	54.0
42	30.1	29.5	44.0	55.6	63.8	72.7	75.6	72.4	66.4	57.2	45.0	30.1	53.5
43	31.9	33.7	40.0	47.5	62.5	76.1	75.4	73.3	64.0	53.8	40.7	31.2	52.5
44	33.9	35.1	39.4	51.0	68.5	74.2	74.3	74.2	65.5	55.3	43.9	27.4	53.6
45	23.7	33.8	50.7	55.7	58.6	69.0	71.9	71.6	67.5	51.0	42.6	26.0	51.9
46	31.0	32.9	50.1	49.7	59.0	67.7	71.5	65.9	64.1	56.2	45.0	35.1	52.3
47	35.0	22.8	32.7	51.3	59.5	68.7	68.2	77.0	64.7	60.8	39.2	31.4	50.9
48	19.9	30.6	42.8	54.6	58.7	69.1	73.6	70.9	65.3	49.7	46.1	34.6	51.3
49	37.3	36.3	40.5	48.3	61.4	73.2	77.6	73.0	60.0	59.3	42.6	34.8	53.7
50	41.3	34.3	37.5	46.8	63.2	69.2	71.7	70.5	64.6	57.2	37.4	25.0	51.6
51	32.3	32.0	41.3	50.2	63.4	71.2	74.5	71.2	64.7	56.3	36.8	32.1	52.2
52	35.4	36.2	39.8	52.4	61.2	76.2	77.7	73.4	66.6	50.0	44.1	36.3	54.1
53	35.8	35.8	42.6	49.3	66.3	74.2	75.9	73.7	66.7	56.7	43.5	35.0	54.6
54	31.9	39.5	38.6	58.6	58.3	73.6	74.7	72.9	68.2	56.4	42.1	32.7	54.0
55	29.0	32.7	42.4	57.7	64.6	67.3	76.1	73.5	66.8	54.5	40.6	30.6	53.0
56	28.6	36.0	39.9	48.6	60.2	69.1	71.6	69.9	60.0	54.7	40.8	38.6	51.5
57	23.7	34.1	39.1	51.6	61.3	70.1	71.5	69.3	63.9	48.7	40.9	35.1	50.8
58	27.6	23.8	37.8	51.8	59.2	65.2	72.7	70.1	65.1	52.3	43.9	22.6	49.3
59	26.3	33.5	38.5	51.8	65.5	69.1	73.1	75.2	67.7	54.4	40.4	36.3	52.6
60	32.9	30.1	27.1	54.7	59.1	68.2	69.9	72.8	67.3	53.5	43.3	24.3	50.3
61	24.2	35.6	44.4	45.8	56.5	66.7	71.7	71.9	69.0	55.2	43.2	31.5	51.3
62	26.1	31.0	38.5	49.1	66.6	70.1	71.1	71.8	62.2	54.8	41.1	24.7	50.6
63	20.6	21.4	42.0	49.3	57.1	68.2	71.1	67.7	61.6	57.6	44.0	21.3	48.5
64	29.9	27.0	39.6	51.7	62.0	68.9	73.1	68.2	63.7	49.2	44.0	33.8	50.9
65	27.4	28.7	34.9	49.1	65.2	67.2	69.9	69.1	66.5	50.5	42.5	37.3	50.7
66	22.7	29.8	41.0	48.5	55.6	69.1	73.8	70.3	60.8	48.6	41.5	30.9	49.4

TOTAL PRECIPITATION (INCHES)

YR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNL
36	2.23	2.89	4.32	2.90	1.50	2.21	4.99	7.42	2.64	3.46	3.06	2.90	40.52
37	11.59	1.09	1.39	4.38	5.14	8.97	4.00	3.18	1.05	4.21	1.31	3.49	49.80
38	2.13	2.82	6.31	4.06	5.63	4.34	3.40	3.06	4.06	.64	4.05	1.60	42.10
39	2.72	4.92	3.58	4.27	1.08	7.94	6.74	5.35	2.36	3.96	.92	1.69	45.53
40	1.49	3.92	4.02	6.26	5.54	6.41	3.31	6.59	2.15	1.92	4.57	3.05	49.23
41	2.00	.64	1.17	1.07	2.61	6.55	7.50	6.14	1.18	5.44	1.95	2.35	38.60
42	1.51	2.13	3.75	2.52	4.69	4.94	2.09	3.22	3.57	2.50	3.38	3.64	37.94
43	2.09	2.03	4.79	3.09	10.84	2.08	4.09	4.73	.77	2.00	1.54	1.15	39.20
44	1.09	1.91	5.88	4.25	2.99	2.42	1.41	3.76	2.02	1.30	1.11	2.89	31.03
45	1.27	2.91	7.38	2.81	4.44	4.37	3.62	1.01	10.40	2.25	3.93	1.84	46.23
46	.71	4.06	2.33	1.33	6.34	6.70	5.77	3.23	.79	5.18	3.39	2.73	42.56
47	5.15	.45	1.09	4.69	7.12	6.53	2.64	3.09	3.11	1.03	2.77	1.31	38.98
48	2.54	3.41	4.70	5.26	3.61	4.19	1.81	1.82	5.16	2.33	2.87	2.32	40.02
49	5.69	2.83	3.28	3.42	3.06	3.84	7.29	4.26	3.44	1.07	1.39	2.75	42.32
50	9.19	3.98	2.57	4.36	4.07	3.17	6.04	.58	2.47	1.22	5.83	2.70	46.18
51	4.53	3.46	5.64	4.37	2.21	6.70	2.80	.08	3.80	1.87	5.35	5.29	46.10
52	7.03	2.41	4.13	5.38	3.39	1.41	3.47	2.16	1.82	.77	1.73	2.81	36.51
53	5.20	1.53	3.02	3.03	3.87	3.22	3.80	1.57	1.22	.95	.95	2.38	30.74
54	2.49	.97	5.58	4.48	2.35	2.05	2.91	3.31	1.64	5.82	1.57	2.99	36.16
55	1.42	3.37	4.33	4.13	2.71	2.34	7.04	4.47	2.26	2.62	4.04	.16	38.89
56	1.68	5.80	4.23	5.10	6.84	7.85	5.17	3.29	2.35	1.51	1.44	3.75	49.01
57	1.98	1.12	2.01	5.29	5.85	8.67	2.68	1.65	4.32	1.75	3.16	4.75	43.23
58	1.99	1.37	1.20	4.28	3.87	5.40	6.86	3.28	2.81	.71	2.37	1.12	35.26
59	5.09	2.91	2.57	3.81	3.89	5.18	5.70	2.36	3.40	6.40	4.08	2.43	47.82
60	2.86	3.91	.90	2.39	3.38	5.14	2.36	3.44	.25	2.54	1.77	1.64	30.58
61	1.73	3.90	4.20	6.53	2.45	2.63	8.03	2.93	.86	2.84	3.02	2.53	41.65
62	3.37	3.62	3.03	1.58	3.46	1.12	4.48	.85	4.49	1.81	2.89	1.86	32.56
63	1.44	.78	6.93	2.79	2.22	2.32	2.94	3.64	.17	.25	1.90	1.12	26.50
64	2.65	1.91	8.49	6.12	2.93	4.93	2.34	3.14	1.22	.95	1.85	5.06	41.59
65	2.82	4.06	2.99	3.61	1.62	2.20	4.37	4.34	6.55	3.72	2.26	.78	39.32
66	3.35	2.39	1.39	5.57	2.81	1.51	4.67	2.57	2.53	.81	4.79	3.02	35.41

MONTHLY AND SEASONAL SNOWFALL

SEASON	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	TOTAL
36-37	.0	.0	3.0	4.5	5.2	3.4	1.6	.0	.0	17.7
37-38	.0	.0	1.5	1.9	3.1	.9	1.5	.0	.0	8.9
38-39	.0	.0	4.3	1.7	9.7	8.9	.5	.4	.0	25.5
39-40	.0	.0	.0	3.8	10.4	12.4	5.5	.0	.0	32.1
40-41	.0	.0	1.1	.3	6.9	6.1	2.7	.0	.0	17.1
41-42	.0	.0	.0	.0	4.5	.4	1.3	.0	.0	6.2
42-43	.0	.0	.3	5.5	3.5	1.0	5.7	.3	.0	16.3
43-44	.0	.0	.3	.0	.0	5.2	5.9	.5	.0	11.9
44-45	.0	.0	.0	9.0	.0	1.4	.0	.0	.0	10.4
45-46	.0	.0	1.2	7.7	1.4	1.0	.0	.0	.0	11.3
46-47	.0	.0	.0	3.6	1.1	7.8	5.1	.0	.0	17.6
47-48	.0	.0	.2	4.0	20.3	5.0	2.0	.0	.0	31.5
48-49	.0	.0	.0	3.4	7.7	1.1	3.3	.0	.0	15.5
49-50	.0	.0	.0	1.2	.5	1.9	3.9	.4	.0	7.9
50-51	.0	.0	21.9	13.4	7.1	8.5	4.0	.0	.0	54.9
51-52	.0	.0	1.3	14.5	2.1	.8	4.5	.0	.0	23.2
52-53	.0	.0	2.5	3.5	6.1	1.3	8.5	3.5	.0	25.4
53-54	.0	.0	3.4	1.8	5.8	.9	13.7	.0	.0	25.6
54-55	.0	.0	.0	1.7	7.3	9.2	5.7	.0	.0	23.9
55-56	.0	.0	5.8	.8	4.5	.0	9.2	.0	.0	20.3
56-57	.0	.0	1.9	10.2	6.4	2.9	3.9	3.0	.0	28.3
57-58	.0	.0	.0	5.2	2.0	5.5	4.5	.0	.0	17.2
58-59	.0	.0	5.5	7.3	10.8	1.0	11.5	.0	.0	36.1
59-60	.0	.0	4.5	4.5	2.0	18.7	16.3	1.0	.0	47.0
60-61	.0	.0	.0	13.0	15.0	19.0	1.0	3.4	.0	51.4
61-62	.0	.0	1.0	7.0	6.5	14.0	6.0	.0	.0	34.5
62-63	.0	.0	.0	9.7	14.3	10.0	2.5	.0	.0	36.5
63-64	.0	.0	.2	13.5	18.0	19.0	4.2	.0	.0	54.9
64-65	.0	.0	1.0	4.3	8.4	7.3	5.9	.0	.0	26.9
65-66	.0	.0	.0	.0	14.2	3.5	.5	.0	.0	18.2

PRECIPITATION WITH PROBABILITY EQUAL OR LESS THAN

	.05	.10	.20	.30	.40	.50	.60	.70	.80	.90	.95
JAN	.72	1.02	1.50	1.93	2.36	2.82	3.33	3.95	4.76	6.04	7.26
FEB	.78	1.03	1.42	1.76	2.08	2.42	2.80	3.24	3.82	4.72	5.56
MAR	1.19	1.56	2.10	2.57	3.03	3.49	4.01	4.62	5.40	6.62	7.74
APR	1.78	2.12	2.60	2.99	3.35	3.72	4.10	4.55	5.11	5.96	6.72
MAY	1.45	1.82	2.36	2.82	3.25	3.69	4.17	4.72	5.44	6.53	7.54
JUN	1.47	1.90	2.54	3.07	3.59	4.13	4.71	5.40	6.27	7.64	8.89
JUL	1.75	2.15	2.71	3.17	3.61	4.05	4.52	5.07	5.77	6.83	7.80
AUG	.70	1.00	1.48	1.91	2.35	2.81	3.34	3.96	4.79	6.10	7.35
SEP	.42	.66	1.05	1.43	1.82	2.25	2.74	3.34	4.14	5.44	6.68
OCT	.48	.70	1.06	1.39	1.72	2.07	2.47	2.96	3.60	4.62	5.59
NOV	.96	1.22	1.58	1.89	2.18	2.47	2.80	3.18	3.66	4.40	5.08
DEC	.73	.97	1.33	1.64	1.94	2.25	2.59	3.00	3.52	4.35	5.11
ANN	30.72	32.61	35.00	36.79	38.38	39.89	41.45	43.17	45.23	48.20	50.76

Median precipitation amounts (0.50 probability level) in the above table differ from the means shown on the opposite page because of the method used in making the computations. The above values were determined from the incomplete gamma distribution whose curve has been found to give best fits to precipitation climatological series.