

(Revised)

U. S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE
SERVICES ADMINISTRATION
WEATHER BUREAU, IN COOPERATION WITH
TRYON CHAMBER OF COMMERCE
CLIMATOGRAPHY OF THE UNITED STATES NO. 20 - 31
CLIMATOLOGICAL SUMMARY

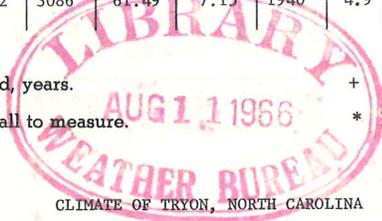
LATITUDE 35° 13' N
LONGITUDE 82° 14' W
ELEV. (GROUND) 1075 Ft.

STATION TRYON, N. C.

MEANS AND EXTREMES FOR PERIOD 1936 - 1965

Table with columns: Month, Temperature (°F) (Means, Extremes), Mean degree days, Precipitation Totals (Inches) (Mean, Greatest daily, Year, Snow, Sleet), Mean number of days (Temperatures Max., Min.), and Month. Rows include months from Jan to Dec and a Year summary row.

(a) Average length of record, years. + Also on earlier dates, months, or years.
† Trace, an amount too small to measure. * Less than one half.
** Base 65°F



TRYON is at the heart of the Thermal Belt region of North Carolina, an area widely known for its long freeze-free growing seasons and the relative mildness of earliest fall freezes and latest spring freezes. Thus, delicate vegetation may be seen growing at a time of year when similar plants have long been killed by frost over the Mountain area generally, and even over large portions of Piedmont North Carolina.

Tryon is situated in the southern edge of Polk County, in the valley of the North Pacolet River, a short distance north of the South Carolina border. Most of Tryon is at an elevation of 1000-1200 feet above mean sea level, while directly to the northwest a spur of the Blue Ridge Mountains forms a northeast-southwest barrier to a height of 2000-4000 feet. Another spur extends southward into South Carolina just west of Tryon, while beyond these spurs the Blue Ridge proper and the Great Smoky Mountains rise to elevations of 5000-6000 feet in the highest part of the Appalachian Mountain System. The Tryon area is thus protected by a series of increasingly high barriers, which tend to hold back the flow of cold air from winter outbreaks moving southward over the Plains States from Central Canada. The weaker of these outbreaks are turned aside and prevented from reaching Tryon, and even the strongest are modified in passing over the Mountains. While the temperature drops below freezing on about half the nights in December, January and February, it is very rare even in the coldest weather that it fails to rise above freezing during the day. There has been only one case of zero weather in Tryon in the past 50 years. Heating requirements, as indicated by heating degree-day values, are lower than for most sections of Piedmont North Carolina and for large portions of the Coastal Plain.

The average length of freeze-free growing season at Tryon is over 200 days per year, a longer season than that of any other weather station in the North Carolina Mountains and longer than some locations in the Piedmont and interior Coastal Plain. The average date of last occurrence in spring of a temperature as low as 32°F is April 10; of 28°F, March 26; of 20°F, February 20. The average date of first occurrence in autumn of 32°F is October 30; of 28°F, November 10, of 20°F, December 5.

Summer afternoons are warm in Tryon, but rapid cooling takes place after sunset, so that even at the warmest time of year early morning temperatures average below 66°F. The occurrence of 90 degree weather is less common here than in the eastern part of North Carolina, but such temperatures have been known to occur in eight of the twelve months. Temperatures as high as 100°F have been observed in the four months, June through September, but this is quite rare; several years may pass without one such occurrence.

Precipitation is abundant in the Tryon area, and exceptionally well-distributed throughout the year. The rainiest months are July and August, at the height of the growing season; these are also the months of warmest temperature, when evaporation is highest and the need for water by agriculture, industry and for personal use is the greatest. The driest month, and the only one averaging less than four inches, is November, in the harvest season. There is rarely any serious droughtiness in the growing season, or at any other time of year.

Some snow falls at Tryon almost every winter, but the average amount is only a small fraction of that which falls in the higher Mountains to the north, and is less than half that which falls in many areas of the western and northern Piedmont. Only one in every five or six winters brings a total winter's snowfall of as much as twelve inches, and only two or three times in the past thirty years has there been a foot on the ground at one time. In the higher Mountains to the north and west, however, snow can be found the greater part of the winter. There are ski resorts only about sixty miles from Tryon.

Westerly winds prevail at Tryon, following the valley of the North Pacolet River. Wind speeds average only about eight or nine miles per hour, however, and directions in the vicinity may vary with local contours of the land. Light breezes are common at night, serving to inhibit frost formation in winter and to increase comfort on summer evenings. The highest winds in the area are usually those accompanying summer thundershowers, since the Mountain barriers diminish the strength of winter storms, and tropical storms affecting coastal North Carolina and adjoining areas in summer and autumn rarely cause high winds this far inland.

The sun shines more than half the daylight hours in Tryon, with the most sunshine in the late spring and early summer, and the least in winter. There is usually a great deal of fine, sunny, outdoor weather in the autumn season, also. Average around-the-clock relative humidity is around seventy percent, being somewhat lower during most of the daylight hours, and a little higher at night. At early afternoon the average is about fifty to fifty-five percent. There is also a slight seasonal variation, with the highest humidities occurring in the late summer and the lowest in spring.

Prepared at Raleigh, N. C.

by Albert V. Hardy

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STATE CLIMATOLOGIST

Average Temperature (°F)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1936	37.8	41.1	53.0	57.0	69.1	74.5	78.4	75.6	71.2	61.2	49.4	44.8	59.4
1937	51.6	44.3	50.4	57.2	66.6	75.7	76.0	74.9	66.6	56.6	47.6	42.5	59.2
1938	42.7	49.7	57.0	58.8	67.8	71.4	74.8	70.0	59.9	53.6	43.8	40.5	60.5
1939	45.2	49.0	54.4	59.0	66.0	77.2	76.8	72.9	63.7	49.3	46.4	46.6	61.2
1940	32.4	43.6	48.6	57.4	66.0	74.6	75.7	75.3	68.2	61.0	50.4	48.0	58.3
1941	43.8	40.8	46.4	61.4	68.6	74.5	77.2	76.2	72.0	67.2	51.5	46.9	60.5
1942	42.0	41.0	44.4	62.0	68.1	76.1	78.6	74.2	68.8	61.6	52.1	42.6	60.0
1943	45.2	46.8	58.8	58.3	70.2	78.6	76.4	78.4	68.0	51.2	46.2	46.2	60.6
1944	43.2	48.2	52.9	58.2	67.3	74.3	74.3	74.1	71.0	60.4	50.1	38.3	59.8
1945	44.0	47.0	60.6	62.8	65.5	75.6	77.0	75.4	73.4	59.8	52.4	37.2	60.9
1946	43.9	46.8	58.4	61.8	66.1	74.2	76.0	74.0	69.6	60.8	47.8	47.8	61.3
1947	46.8	39.0	44.4	63.3	67.4	70.6	73.6	77.7	72.0	64.0	55.6	43.2	59.2
1948	37.0	46.5	56.0	63.4	69.1	75.0	78.0	74.8	68.6	57.6	54.3	48.5	60.7
1949	51.4	50.3	52.9	58.2	67.3	74.3	78.4	74.3	67.5	50.3	44.2	44.2	61.1
1950	54.1	48.4	49.5	57.1	69.2	74.1	74.0	73.1	68.3	47.8	40.3	40.3	59.9
1951	43.1	45.9	52.2	58.8	66.7	74.0	77.7	78.0	71.0	63.7	46.5	44.2	60.2
1952	49.3	47.4	51.4	60.4	68.5	80.0	78.6	75.3	69.4	57.9	51.5	43.5	61.1
1953	46.2	48.1	54.2	60.2	72.4	76.1	77.5	76.6	70.3	62.3	52.4	41.0	61.6
1954	44.8	49.7	52.6	63.9	64.0	74.8	79.2	79.1	74.4	63.5	47.7	41.0	61.2
1955	43.5	45.7	54.9	64.2	69.6	70.7	78.4	78.7	73.1	60.9	51.8	39.3	60.9
1956	41.6	48.4	53.5	58.9	69.4	75.1	77.3	77.7	69.7	62.5	50.8	53.0	61.5
1957	45.4	51.3	51.7	63.3	69.7	75.4	77.5	75.6	72.1	58.2	53.0	45.8	61.6
1958	38.7	38.8	48.1	60.8	69.2	75.3	77.8	77.4	70.5	59.9	56.3	41.9	59.6
1959	42.8	47.7	50.6	61.8	70.8	74.7	76.8	78.7	71.0	63.3	50.4	45.8	61.2
1960	44.5	42.9	39.9	62.2	65.0	73.6	75.6	75.9	70.7	61.4	51.5	39.5	58.6
1961	39.1	47.3	54.7	55.0	63.3	70.9	75.2	74.4	72.1	60.4	56.6	42.5	59.3
1962	41.4	48.8	47.7	56.6	73.1	72.9	76.3	75.6	68.9	50.4	40.4	40.4	59.6
1963	38.9	39.3	55.4	63.1	68.1	74.3	75.8	77.2	70.3	63.9	54.6	38.1	59.9
1964	43.7	42.3	53.4	62.5	72.7	76.8	76.9	76.5	58.5	55.6	44.8	44.8	61.3
1965	43.6	43.7	48.6	61.2	72.2	72.2	76.2	76.4	71.9	59.5	52.2	45.4	60.3

Total Precipitation (Inches)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1936	11.53	5.64	6.29	9.44	.95	2.06	4.01	4.79	7.52	14.25	2.71	9.12	78.31
1937	11.82	4.54	1.89	5.97	2.88	3.23	10.95	8.08	4.93	11.05	2.31	2.70	70.35
1938	3.17	2.36	5.46	2.70	6.27	5.32	10.24	3.76	3.65	.85	3.64	3.42	50.84
1939	5.37	11.52	3.55	4.62	4.35	4.16	6.60	11.64	2.02	1.18	1.12	3.48	59.61
1940	3.67	5.21	4.95	2.74	1.84	5.23	4.25	14.64	.99	2.29	5.53	4.61	55.95
1941	2.48	1.54	5.49	2.85	1.52	3.91	6.48	5.78	1.09	1.63	3.50	6.28	42.55
1942	4.21	6.60	6.52	.99	10.13	9.43	10.32	9.33	2.64	2.41	9.31	71.82	71.82
1943	6.18	2.84	7.44	4.96	9.00	9.00	11.54	3.12	4.16	.84	2.75	4.58	63.01
1944	4.39	8.30	11.02	6.08	.77	3.23	4.33	4.33	10.02	3.56	5.83	3.81	65.57
1945	2.08	6.76	4.88	5.63	2.33	1.66	9.72	2.20	11.12	2.88	4.06	9.45	62.77
1946	11.63	5.97	7.29	2.99	7.28	2.75	8.24	5.75	4.53	6.17	4.94	2.70	70.24
1947	8.15	1.42	4.45	3.72	2.94	9.10	4.72	4.42	2.29	8.38	6.25	2.68	58.52
1948	4.59	5.13	9.59	1.39	3.89	3.10	9.36	11.67	5.34	1.25	14.26	5.45	75.02
1949	5.42	5.45	5.81	7.53	2.95	5.21	7.71	16.06	3.70	8.17	2.37	3.34	73.72
1950	3.35	2.35	5.75	1.17	8.06	3.65	7.47	8.91	6.31	6.78	1.12	5.05	59.97
1951	1.75	3.83	7.66	4.71	.67	7.13	3.96	2.88	3.65	1.93	4.96	10.48	53.61
1952	5.94	5.58	13.73	5.89	3.28	1.30	3.32	6.74	1.07	1.97	2.99	4.63	56.44
1953	5.71	8.50	7.85	3.54	2.30	6.06	2.30	2.16	6.31	.55	2.64	7.79	55.71
1954	9.77	3.69	7.12	2.22	3.47	3.15	3.56	1.75	.11	.28	5.37	6.49	46.98
1955	2.19	5.52	2.97	6.68	7.08	3.81	6.97	3.09	1.38	2.72	1.79	.52	44.72
1956	1.49	10.12	4.08	6.50	3.43	1.21	5.99	3.38	5.28	3.20	2.92	4.29	51.89
1957	4.49	7.50	5.86	8.03	3.56	10.89	1.32	3.36	10.43	4.74	7.94	3.97	72.09
1958	5.28	6.48	6.48	11.95	3.81	2.97	8.60	5.23	1.50	1.98	2.34	6.49	61.86
1959	4.40	5.56	7.60	7.60	13.98	4.58	9.11	3.87	8.78	11.57	2.02	5.05	80.05
1960	6.60	11.29	10.10	2193	4.91	5.59	5.19	7.02	6.15	5.40	1.26	1.71	68.15
1961	4.42	9.69	4.91	6.18	7.36	13.21	3.38	11.28	1.64	1.43	5.93	9.73	79.16
1962	7.53	5.48	7.52	8.84	1.83	8.75	3.04	4.31	3.87	3.14	2.01	4.83	61.15
1963	4.06	3.03	10.62	6.14	2.77	6.60	4.25	1.34	6.99	.14	5.38	3.00	54.32
1964	7.75	5.83	7.09	8.75	1.91	3.56	9.51	9.79	5.81	13.50	4.33	5.67	83.50
1965	2.83	8.89	7.46	5.44	3.50	6.06	5.64	3.92	1.17	6.28	.95	.92	53.06

STATION HISTORY

We are indebted to Wayne W. Creaman, Weather Observer at Tryon from 1930 through 1965, for all of the records used in the preparation of this summary. The weather instruments were located at his residence on Trade Street.