

September 1, 2020

## **A monthly weather summary – August 2020**

### **General**

August was warmer than average, especially due to the heatwave that prevailed in the last three days of the month. During the rest of the month, temperatures in the mountains and in the internal parts of the country were mostly close to average and on some days even slightly below it.

Extreme temperature were measured during the heat wave at the end of the month, but generally they did not break the records, which were mostly set during the last decade - a decade, in which the heatwaves frequency has increased, as part of the global warming.

### Temperatures and weather throughout the month

The temperatures in August during daytime were higher than average (1995 – 2009) by 0.5 to 1 degrees. In the northern valleys and the Arava, they were slightly higher. During nighttime, the temperatures in the north and the centre of the country were higher than average by 0.5 to 1 degrees and in the south, higher by less than 0.5 degrees.

The beginning of August was warmer than average, following the heatspell at the end of July. However, on August 4<sup>th</sup>, there was some cooling and later on, there was a cooler than usual episode in the mountains and inland on the 8th to the 12th of the month. During this period (especially on the 9<sup>th</sup> and 10<sup>th</sup>), there were some light rains in the north of the country and in the Coastal Plain, amounting to a few tenths of a Milimeter and in several stations even more. In mid August it became warmer, but temperatures were mostly close to the average.

On the 29<sup>th</sup>, there was a considerable warming and during the last three days of the month, a heatspell prevailed. It became very warm and dry in some of the areas, such as the Jordan Valley, the Kinneret and the Hula Valley with 43-46 degrees, the Southern Golan Heights and the Lower Galilea with 42 to 44 degrees and Jerusalem area with 39 to 40 degrees. Relative humidity in these areas was low- 10% to 15% .

In other areas of the country, the temperatures were not as high, but they were accompanied by high relative humidity values – in the Shfela and the north of the Negev 35 to 37 degrees with a relative humidity of 45% to 50%, in the Coastal Plain 32 to 34 degrees with a relative humidity of 60% to 70% and in the Coastal Plain 31 to 32 degrees with a relative humidity of 75% to 80%.

In a small number of stations in the North East of the country, new records for the August Temperature were set, during the heatspell (Yavniel and Tavor), but in most stations, new records were not set. Nevertheless, it should be noted that heatwaves with similar temperatures or higher, are occurring in the last years more frequently than before – in the last decade, there were more substantial heatspells during the month of august, in the years 2010 and 2015, whereas in previous decades, such events were very rare. This fact is consistent with the estimation that following global warming there is an increase in the frequency and intensity of heat waves.

**Table 1: August 2020 temperatures<sup>1</sup> (°C) compared with the average**

Region	Station	August 2020		Deviation from the average 1995-2009	
		Maximum	Minimum	Maximum	Minimum
Coastal Plain and the Shfela	Haifa (Technion)	29.8	23.8	+1.0	+0.7
	En HaHoresh	31.9	22.1	+0.4	+1.9
	Bet Dagan	32.7	23.6	+0.9	+0.8
	Negba	32.6	22.8	+0.7	+0.8
Northern mountains	Elon (western Galilee)	31.5	21.8	+0.6	+0.4
	Merom Golan Picman	30.0	17.3	+0.6	+0.5
	Avne Etan	33.5	21.2	+0.2	+1.5
	Zefat Har Kenaan	30.0	20.1	-0.2	+0.5
	Tavor	35.4	22.9	+1.4	+0.5
Northern valleys	Afula, Nir HaEmeq	35.5	22.4	+1.3	+0.8
	Kefar Blum	36.8	21.4	+1.2	+0.5
	Zemah	38.6	24.7	+1.0	+0.9
	Eden Farm (Bet Shean)	38.2	24.9	+0.7	+0.8
Central mountains	Karne Shomron	31.8	21.9	+1.0	+0.8
	Jerusalem	30.7	20.5	+0.8	+0.5
	Bet Jimal	33.1	22.0	+0.2	+0.3
	Rosh Zurim	28.8	18.7	+0.5	0.0
Negev	Besor	32.4	21.7	-0.1	+0.4
	Arad	34.1	19.6	+0.6	+0.3
	Be'er Sheva	34.8	21.9	+0.1	+0.4
	Sede Boqer	33.7	19.4	+0.7	+0.2
Arava	Sedom	41.6	31.1	+1.8	+0.4
	Elat	40.8	27.7	+0.8	+0.3

<sup>1</sup> Due to installment of new temperature sensors, maximum temperatures might be higher by several tenths of °C when compared with readings of older sensors. This is currently being investigated.

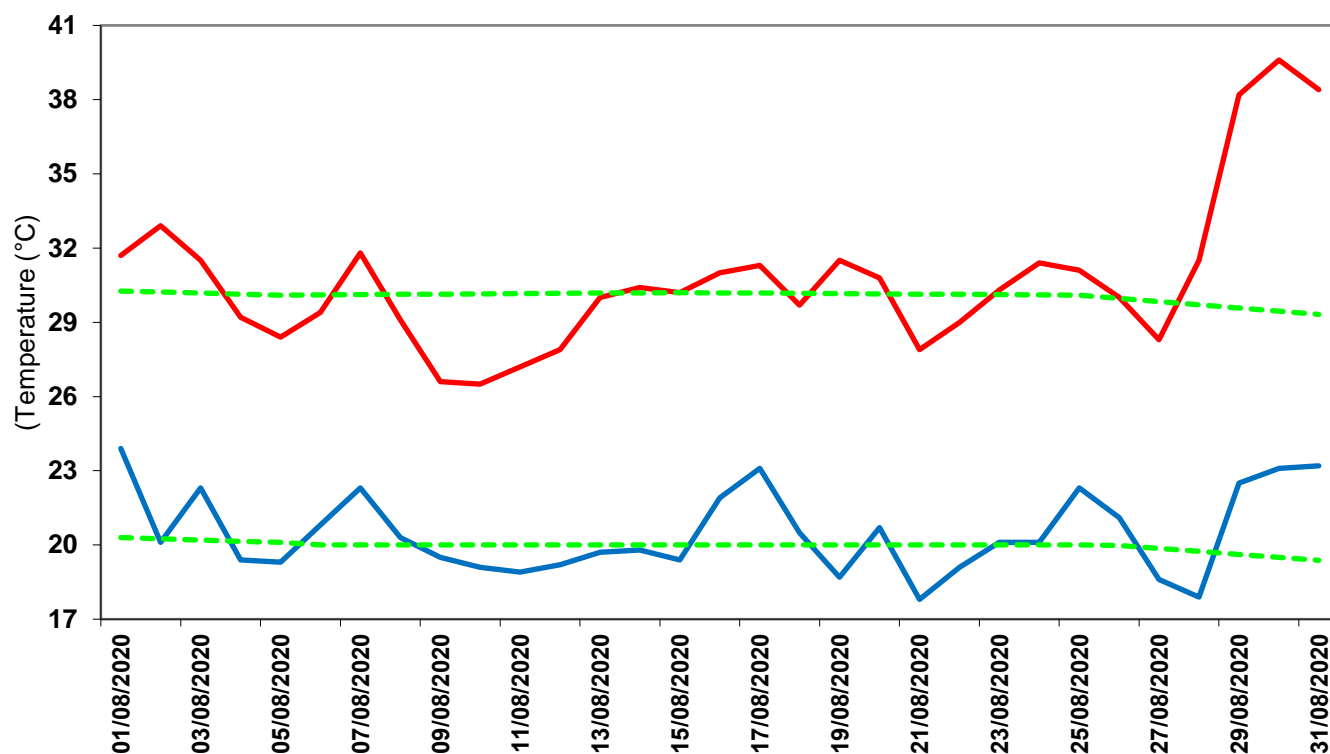
**Table 2: Extreme temperatures in August 2020 ( $^{\circ}\text{C}$ ) compared with the past**

Station	August 2020				Extreme Values in record				Period of measurements
	Extreme Max.		Extreme Min.		Extreme Max.		Extreme Max.		
	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	
Bet Dagan	34.2	3/8/20	19.9	3/8/20	38.6	1/8/12	14.6	18/8/69	1962-2020
Negba	34.8	3/8/20	19.4	3/8/20	39.4	1/8/12	14.0	18/8/69	1950-2020
Zefat Har Kenaan	37.6	31/8/20	16.1	21/8/20	40.6	20/8/10	13.0	22/8/49	1939-2020
Jerusalem <sup>1</sup>	39.6	30/8/20	17.8	21/8/20	44.4	28/8/1881 30/8/1881	14.0	3/8/26	1867-2020
Be'er Sheva <sup>2</sup>	36.9	29/8/20	18.4	28/8/20	43.8	6/8/10	12.0	31/8/34	1922-2020
Elat	43.8	1/8/20	26.0	28/8/20	48.0	1/8/02	19.4	22/8/76	1949-2020

<sup>1</sup> For Jerusalem: Center 1950-2020 (Giv'at Ram 2019); Talbiye 1948-1949; Palace Hotel 1935-1947, American Colony 1927-1935, Mt. of Olives 1918-1926, German Colony 1895-1915, English Hospital Nevi'im St 1898-1913, English Hospital Old City 1867-1915

<sup>2</sup> For Be'er Sheva: Negev Institute 1957-2020; Old Town 1922-1957.

**Figure 1: Daily minimum and maximum temperatures in Jerusalem in August 2020 compared with the long-term average**



**Figure 2: Daily minimum and maximum temperatures in Bet Dagan in August 2020 compared with the long-term average**

