

REPUBLIC OF TÜRKİYE MINISTRY OF ENVIRONMENT, URBANIZATION AND CLIMATE CHANGE Turkish State Meteorological Service





State of the Climate in May 2024



Climate and Agricultural Meteorology Department Research Department

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1. Introduction

The mean temperature of Türkiye in May 2024 was 16.9°C. This value was 0.2°C below the 1991-2020's normal (17.1°C).

Mean temperatures in May 2024 were near normal in whole Türkiye.

Regional temperatures were near normal long-term mean (1991-2020) in all 7 regions.

The lowest temperature was observed in Erzurum with -2.9°C and the highest temperature was observed in Ceylanpinar with 39.6°C. There were no extreme maximum or minimum temperature records.

Türkiye's areal mean precipitation in May 2024 was 70.3 mm. This value is approximately 33% above the 1991-2020's normal (52.7 mm).

During the May, rainfall were decreased of approximately 40% in coast of Aegean, Edirne, Tekirdağ, Çanakkale, Balıkesir, Mardin, Mersin and Antalya. On the contrary an increased of 200% compared to normal was recorded in Ankara, Konya, Trabzon, Adana, Osmaniye, Hatay, Siirt and Şırnak.

In May, the highest precipitation was occurred in Rize with 165.4 mm and lowest recorded with 17.9 mm precipitation in Aydın.

Regional precipitation in May were above normal (1991-2020) in all regions except Marmara and Aegean region.

The number of rainy days in May throughout Turkey was above normal with 12.5 days (1991-2020 normal is 10.3 days). The number of rainy days occurred in the range of 0-5 days in Aegean region, west parts of Central Anatolia and Mediterranean region, Bolu, Bursa, Bilecik, Mersin, Şanlıurfa, Mardin, Bingöl, Siirt, Şırnak and Artvin; in the range of 10-15 in Edirne, Kırklareli, Samsun, Ordu, and Trabzon.

There are 161 extreme events have been reported in May 2024 in TSMS's Kardelen Database. Percentage of extreme events recorded in May 2024 were heavy rain-flood (39%), hail (40%), storm-tornado (10%), landslide (1%), lightning (6%) and frost (4%).

2. Temperature

The mean temperature of Türkiye in May 2024 was 16.9°C. This value was 0.2°C below the 1991-2020's normal (17.1°C) (Fig.2.1).

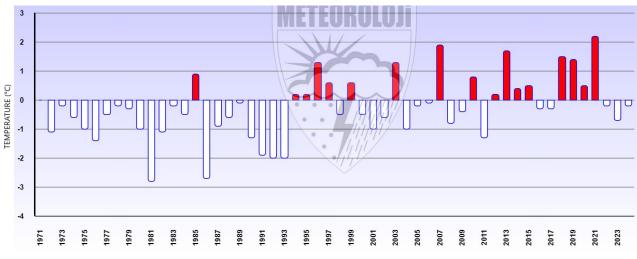


Figure 2.1 Monthly mean temperature anomalies in May (Url 1).

Mean temperatures in May 2024 were near normal in whole Türkiye (Fig.2.2).

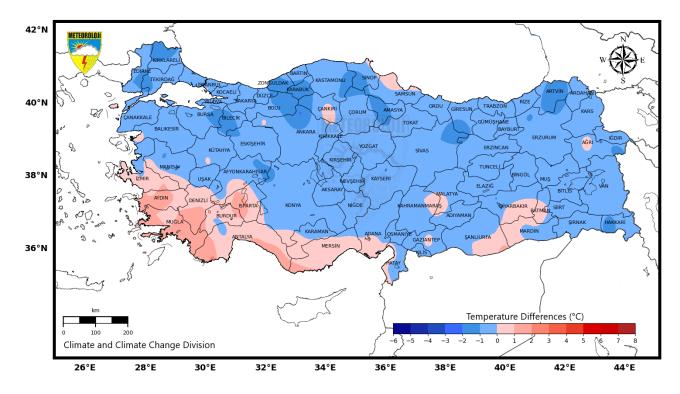


Figure 2.2. Spatial distribution of mean temperature anomaly in Türkiye in May 2024 (Url 1).

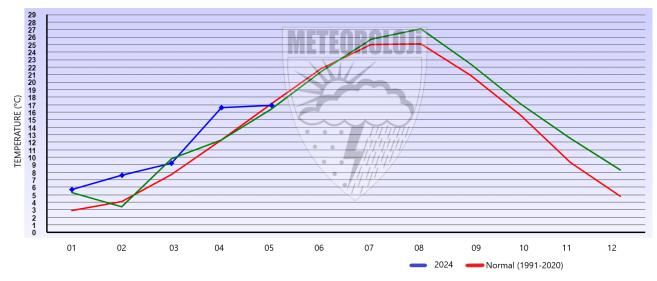


Figure 2. 3 The difference of the monthly mean temperature in 2024 from normal (1991-2020) (Url 1).

The monthly mean temperature of May was near its normal.

2.1. Regional Temperature

Regional temperatures were near normal long-term mean (1991-2020) in all 7 regions (Fig. 2.4).

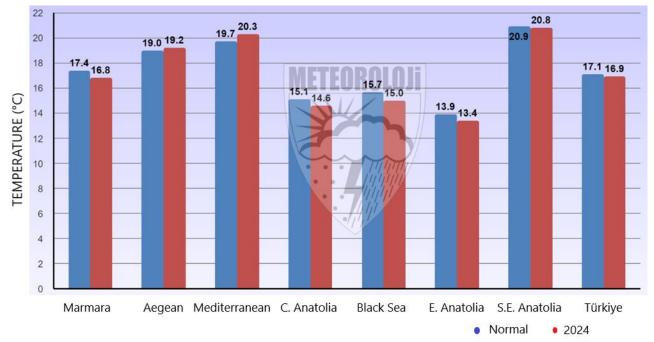


Figure 2. 4 Regional mean temperature differences in May 2024 (Url 1).

2.2. Extreme Temperature

The lowest temperature was observed in Erzurum with -2.9°C and the highest temperature was observed in Ceylanpinar with 39.6°C. There were no extreme maximum or minimum temperature records.

3. Precipitation

Türkiye's areal mean precipitation in May 2024 was 70.3 mm. This value is approximately 33% above the 1991-2020's normal (52.7 mm) (Fig. 3.1)

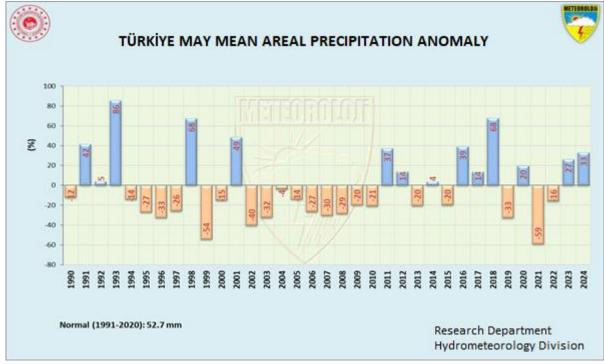
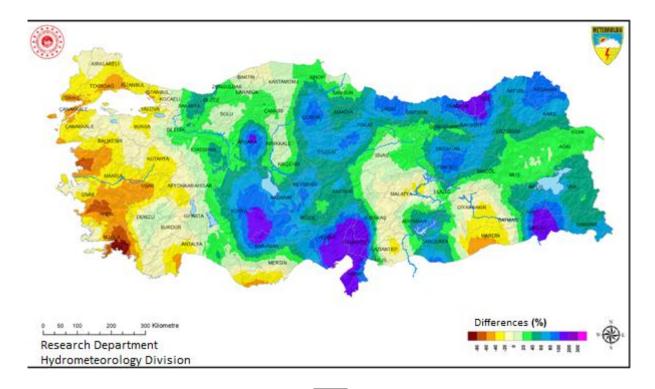


Figure 3. 1 Areal precipitation anomaly in May in Türkiye (Url 2).



During the May, rainfall were decreased of approximately 40% in coast of Aegean, Edirne, Tekirdağ, Çanakkale, Balıkesir, Mardin, Mersin and Antalya. On the contrary an increased of 200% compared to normal was recorded in Ankara, Konya, Trabzon, Adana, Osmaniye, Hatay, Siirt and Şırnak (Fig. 3.2).

3.1. Regional Precipitation

Regional precipitation in May were above normal (1991-2020) in all regions except Marmara and Aegean regions (Figure 3.3).

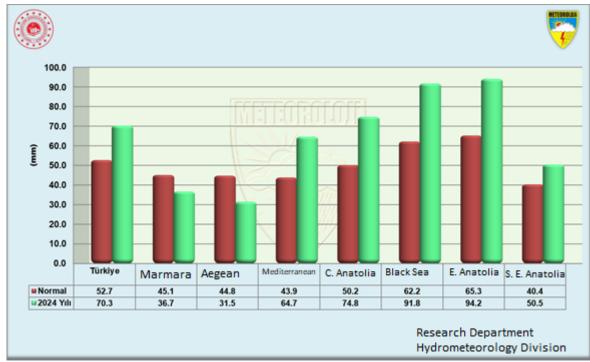


Figure 3. 3 Regional Precipitation Differences in May 2024 (Url 2).

3.2. Rainy Days

The number of rainy days in May throughout Turkey was above normal with 12.5 days (1991-2020 normal is 10.3 days). The number of rainy days occurred in the range of 0-5 days in Aegean region, west parts of Central Anatolia and Mediterranean region, Bolu, Bursa, Bilecik, Mersin, Şanlıurfa, Mardin, Bingöl, Siirt, Şırnak and Artvin; in the range of 10-15 in Edirne, Kırklareli, Samsun, Ordu, and Trabzon (Fig. 3.4).

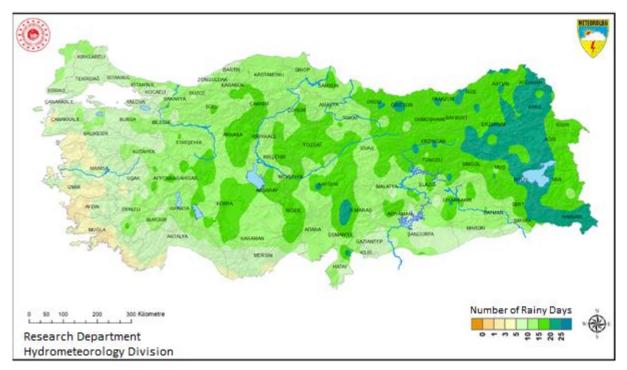


Figure 3. Number of rainy days in May 2024 (Url 2).

4. Extreme Meteorological Events

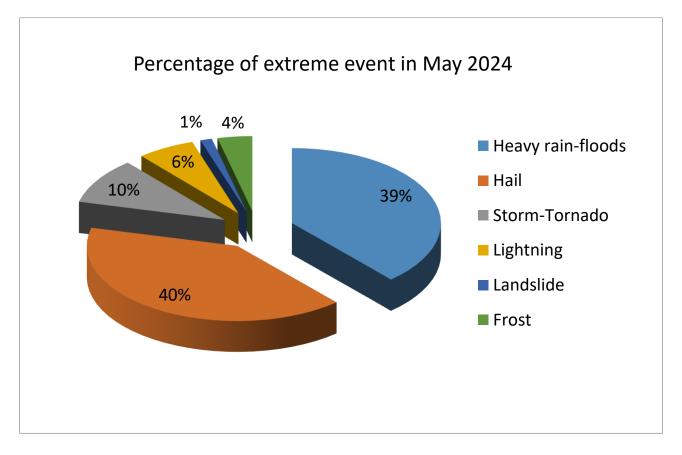


Figure 4.1. Percentage of extreme event in May 2024 (Url 3).

There are 161 extreme events have been reported in May 2024 in TSMS's Kardelen Database. Percentage of extreme events recorded in May 2024 were heavy rain-flood (39%), hail (40%), storm-tornado (10%), landslide (1%), lightning (6%) and frost (4%) (Fig. 4.1).

References

- 1. URL 1, Turkish State Meteorological Service, temperature analysis <u>http://www.mgm.gov.tr/veridegerlendirme/sicaklik-analizi.aspx</u>
- 2. URL 2, Turkish State Meteorological Service, precipitation analysis http://www.mgm.gov.tr/veridegerlendirme/yagis-raporu.aspx
- URL 3, Turkish State Meteorological Service, Kardelen, meteorological extreme event database <u>http://kardelen.mgm.gov.tr/BultenGenel/Klima/fevkGlnYeni.aspx</u>



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