

Decadal Agromet Bulletin of Pakistan



Highlights...

- ❖ Light to moderate amount of rainfall was reported from most parts of the country while few heavy to very heavy showers were reported from Punjab, South Sindh, Kashmir and isolated heavy showers from southeast Balochistan and Gilgit Baltistan,
- ❖ Highest amount of rainfall recorded was 248.5 mm at Mithi during the last decade.
- ❖ Highest maximum temperature recorded as 45.0°C at Nokkundi during the last decade.

Mainly hot and dry weather is expected in most parts of the country. However, rain-wind/thundershower is likely in most parts of Punjab, KPK, GB, Kashmir, Northeast & South Balochistan and Sindh during first half and in upper Punjab, upper KPK, GB and Kashmir during second half of the decade.

- ❖ Farmers are advised to view the weather forecast before any field activity.

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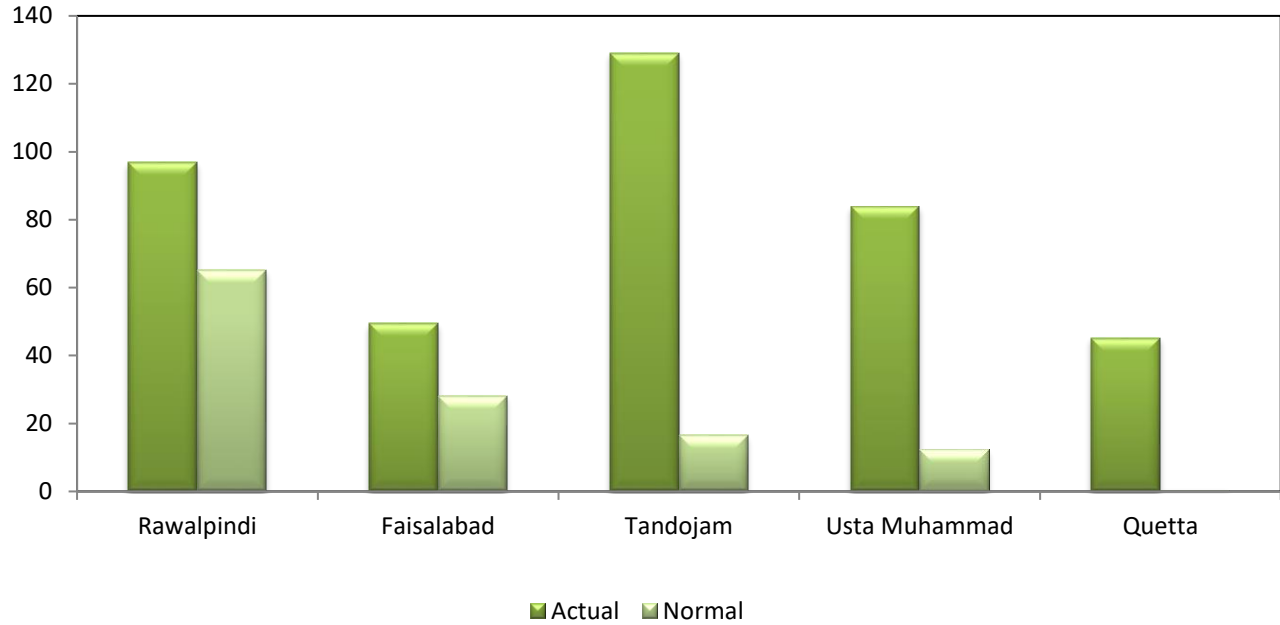
Meteorological Conditions during 3rd Decade of August 2024

Sr. No.	Station	Precipitation (mm)			Air Temperature (°C)			Soil Temperatures (°C)						R.H (%)	Sunshine Duration(hours)	Wind Speed (km/hr)	ETo (mm/day)
		Normal	Actual	Dep	Tmx Dep	Tmin Dep	Mean	5cm	10cm	20cm	30cm	50cm	100cm				
1	Rawalpindi	65.2	96.9	31.7	-0.905	-1.3	26.7	30.2	29.7	29.2	29.3	29.6	29.9	72	62.8	1.3	3.7
2	Faisalabad	28.1	49.4	21.3	-2.2	0.7	30.4	30.6	31.4	31.6	31.5	***	32.3	74	56.7	2.3	4.0
3	Jhelum	68.4	147.8	79.4	-1.5	0.7	28.7	31.0	30.4	33.5	29.9	30.5	***	83	65.1	3.0	4.0
4	Lahore	66.1	61.3	-4.8	-0.4	-0.5	30.3	30.9	31.1	30.9	30.8	***	30.6	71	57.0	1.1	3.8
5	Sargodha	30.3	96.8	66.5	-2.5	-0.7	30.3	32.6	32.2	31.9	31.9	***	***	78	42.0	2.4	3.6
6	Multan	8.0	153.0	145.0	-2.2	0.0	31.3	***	***	***	***	***	***	70	69.9	5.1	4.7
7	Khanpur	7.5	74.4	66.9	-1.1	2.0	32.1	***	34.6	34.8	35.0	35.1	34.6	74	82.9	**	5.5
8	Tandojam	16.5	129.1	112.6	-0.4	0.2	30.0	***	34.1	32.8	35.0	32.4	32.9	73	56.7	7.9	4.8
9	Sakrand	7.6	66.0	58.4	-1.4	1.3	30.9	38.4	***	***	***	***	***	72	70.7	4.2	4.8
11	Rohri	3.3	22.0	18.7	-2.9	2.1	31.8	***	***	***	***	***	***	68	87.6	**	5.8
12	D.I Khan	24.8	39.5	14.7	-2.3	0.3	30.3	31.9	31.5	13.1	***	0.0	***	71	65.7	3.3	4.4
13	Peshawar	15.8	1.0	-14.8	-0.1	-0.6	30.4	32.7	32.5	31.7	31.3	30.8	30.4	65	63.7	4.1	4.5
14	Usta M.	12.3	83.8	71.5	0.0	0.0	30.3	35.5	34.9	34.1	***	***	36.2	72	**	3.4	3.6
15	Quetta	0.4	45.2	44.8	-4.2	-0.1	24.3	32.4	31.1	29.2	28.8	29.3	28.3	49	95.7	4.9	5.2
16	Skardu	6.3	17.9	11.6	-3.86	-0.2	20.7	***	***	***	***	***	***	50	40.2	0.4	2.8
17	Gilgit	6.4	21.8	15.4	-5.2	1.9	23.6	***	***	***	***	***	***	61	44.5	3.2	3.5

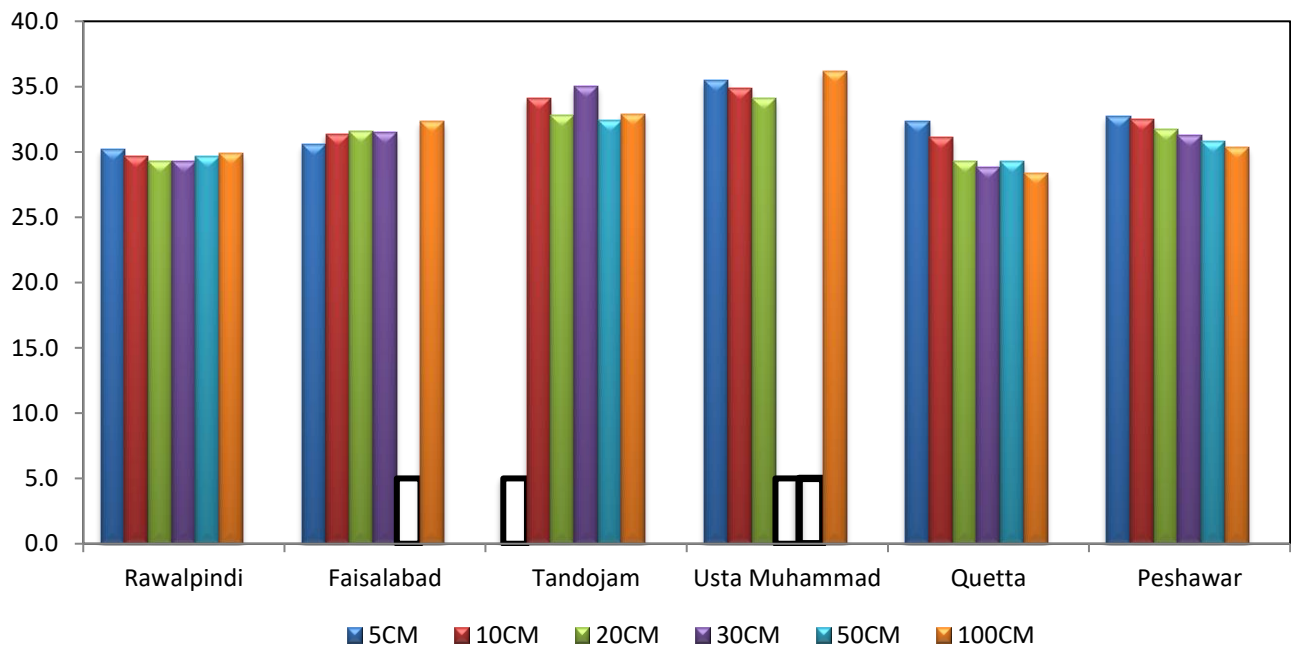
Table-1: Meteorological parameters for selected station of Pakistan. "Dep" in the table stands for difference from climatic normal, i.e. actual value minus normal. The climatic normally used in the Bulletin is extracted from the 2007 - 2016 observed data. 'ETo' stands for reference crop Evapotranspiration*** stands for data non availability.

Graph at RAMCs during August 2024

Precipitation(mm) during 3rd Decade



Soil Temperature(°C)



* Faisalabad 50 cm and Tandojam 5cm Usta Muhammad 30 cm , 50 cm soil temperature data is is not available.

Past Weather (21st to 31st August 2024)

Light to moderate amount of rainfall was reported from most parts of the country while few heavy to very heavy showers were reported from Punjab, South Sindh, Kashmir and isolated heavy showers from southeast Balochistan and Gilgit Baltistan.

1.1 Punjab

Light to moderate rain observed from most parts (with few heavy to very heavy falls was reported from some isolated places) of the province. The decadal maximum temperature was observed below normal by -1.5°C and minimum temperature rose above normal by 0.11°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded 75%, 62.3hrs, 2.5km/hr and 4.1mm/day respectively.

1.2 Sindh

Light to moderate rain with isolated heavy to very heavy falls was reported from southern parts of the province. The decadal maximum temperature was observed below normal by -1.5°C and minimum temperature rose above normal by 1.1°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 71%, 71.6hrs, 6.0km/hr and 5.1mm/day respectively.

1.3 Khyber Pakhtunkhwa

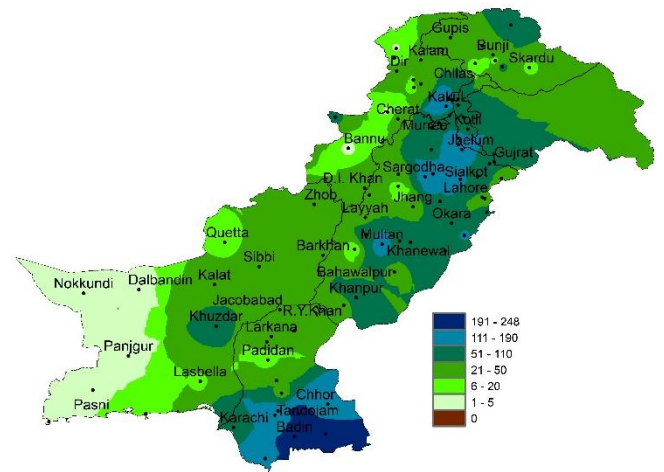
Light to moderate rain was reported from most parts of the province. Whereas isolated very heavy falls was reported from northeast parts. The decadal maximum and minimum temperatures were observed below normal by -1.2°C and -0.15°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 68%, 64.7hrs, 3.7km/hr and 4.45mm/day respectively.

1.4 Baluchistan

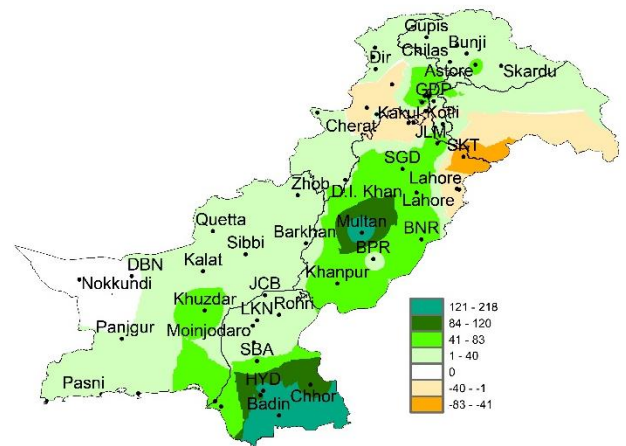
Light to moderate rain was reported from most parts of the province. Whereas isolated very heavy falls was reported from southeast parts during. The decadal maximum and minimum temperatures were observed below normal by -2.1°C and -0.04°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 61%, 95.7hrs, 4.1km/hr and 4.4 mm/day respectively.

1.5 Gilgit-Baltistan and Azad Jammu & Kashmir.

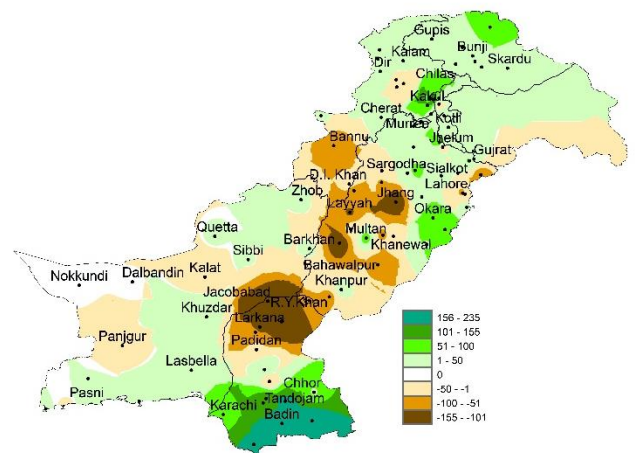
Light to moderate rain with isolated heavy falls from Gilgit-Baltistan and heavy to very heavy falls was reported from Kashmir. The decadal maximum temperature was observed below normal by -4.5°C and minimum temperature rose above normal by 0.85°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 55%, 42.35hrs, 1.8km/hr and 3.15mm/day respectively.



I. Actual rainfall



II. Departure of rainfall from Normal



III. Departure of rainfall from Previous Decade

Figure.1: Rainfall distribution during previous decade (mm)

(a) **Past Weather for Major Agricultural Plains (21st to 31st August 2024)**

2.1 RAMC, Rawalpindi (Potohar region)

Rainfall reported as 96.9 mm during the decade; however, weather remained partially cloudy for 09 days. Average relative humidity recorded as 72%. Mean day temperature was 31.7°C while night temperature recorded as 21.7°C with 62.8 hours bright sunshine duration. Wind speed recorded as 1.3 km/hr with mean wind direction *south westerly*.

2.2 RAMC, Faisalabad (Central Punjab)

Rainfall reported as 49.4 mm during the decade; however, weather remained partially cloudy during the decade. Average relative humidity recorded as 74%. Mean day temperature was 33.9°C while night temperature recorded as 26.8°C with 56.7 hours bright sunshine duration. Wind speed recorded as 2.3 km/hr with mean wind direction *south easterly*.

Cotton: *Very good, Maturity.*

2.3 RAMC, Tandojam (Lower Sindh)

Rainfall reported as 129.1 mm during the decade; however, weather remained partially cloudy during the decade. Average relative humidity recorded as 73%. Mean day temperature was 34.7°C while night temperature recorded as 25.3°C with 56.7 hours bright sunshine duration. Wind speed recorded as 7.9 km/hr with mean wind direction *north easterly*.

Cotton: *Good, Flowering.*

2.4 RAMC, Usta Muhammad (Eastern Baluchistan)

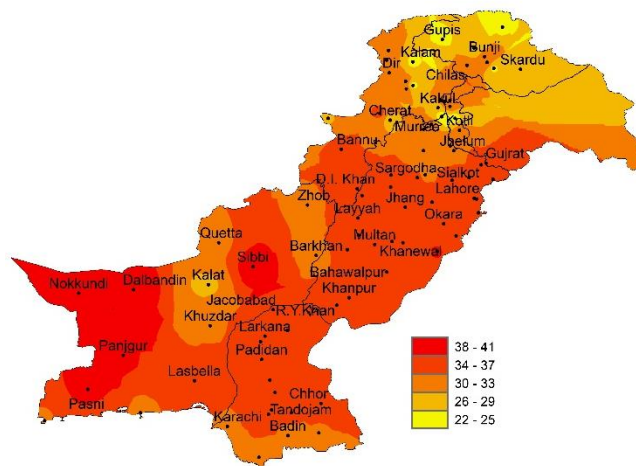
Rainfall reported as 83.8 mm during the decade; however, weather remained partially cloudy during the decade. Average relative humidity recorded as 72%. Mean day temperature was 35.3°C while night temperature recorded as 25.3°C. Wind speed recorded as 3.4 km/hr with mean wind direction *variable*.

Rice: *Good, Third Leaf.*

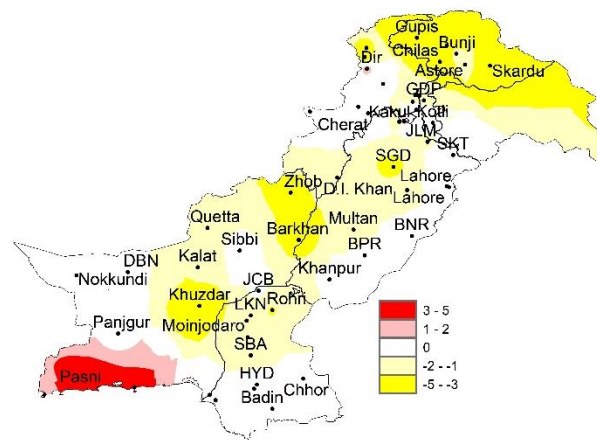
2.5 RAMC, Quetta (Northern Baluchistan)

Rainfall reported as 45.2 mm during the decade; however, weather remained partially cloudy during the decade. Average relative humidity recorded as 49.4%. Mean day temperature was 30.8°C while night temperature recorded as 17.8°C with 95.7 hours bright sunshine duration. Wind speed recorded as 4.9 km/hr with mean wind direction *south westerly*.

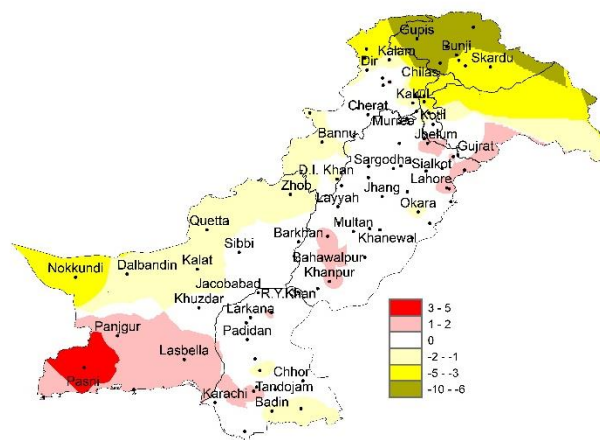
Wheat: *Nil.*



I. Actual max-temperature



II. Departure of max-temperature from Normal



III. Departure of max-temperature from Previous Decade

Figure.2: Maximum Temperature distribution during previous decade (°C)

2(b) Past Weather or Sub-Regional Agricultural Plains (21st to 31st August 2024)

2.6 Jhelum

Rainfall reported as 147.8 mm during the decade; however, weather remained partially cloudy for 09 days. Average relative humidity recorded as 83%. Mean day temperature was 33.1°C while night temperature recorded as 24.3°C with 65.1 hours bright sunshine duration. Wind speed recorded as 3.0 km/hr with mean wind direction *variable*.

2.7 Lahore

Rainfall reported as 61.3 mm during the decade; however, weather remained partially cloudy for 10 days. Average relative humidity recorded as 71%. Mean day temperature was 34.5°C while night temperature recorded as 26.1°C with 57.0 hours bright sunshine duration. Wind speed recorded as 1.1 km/hr with mean wind direction *north easterly*.

2.8 Sargodha

Rainfall reported as 96.8 mm during the decade; however, weather remained partially cloudy for 10 days. Average relative humidity recorded as 78%. Mean day temperature was 34.2°C while night temperature recorded as 26.3°C with 42.0 hours bright sunshine duration. Wind speed recorded as 2.4 km/hr with mean wind direction *north easterly*.

2.9 Multan

Rainfall reported as 153.0 mm during the decade; however, weather remained partially cloudy during the decade. Average relative humidity recorded as 70%. Mean day temperature was 35.0°C while night temperature recorded as 27.6°C with 69.9 hours bright sunshine duration. Wind speed recorded as 5.1 km/hr with mean wind direction *north easterly*.

2.10 Khanpur

Rainfall reported as 74.4 mm during the decade; however, weather remained partially cloudy during the decade. Average relative humidity recorded as 74%. Mean day temperature was 36.5°C while night temperature recorded as 27.7°C with 82.9 hours bright sunshine duration. Mean wind direction *north easterly*.

2.11 Sakrand

Rainfall reported as 66.0 mm during the decade; however, weather remained partially cloudy for 10 days. Average relative humidity recorded as 72%. Mean day temperature was 35.4°C while night temperature recorded as 26.4°C with 70.7 hours bright sunshine duration. Wind speed recorded as 4.2 km/hr with mean direction *northerly*.

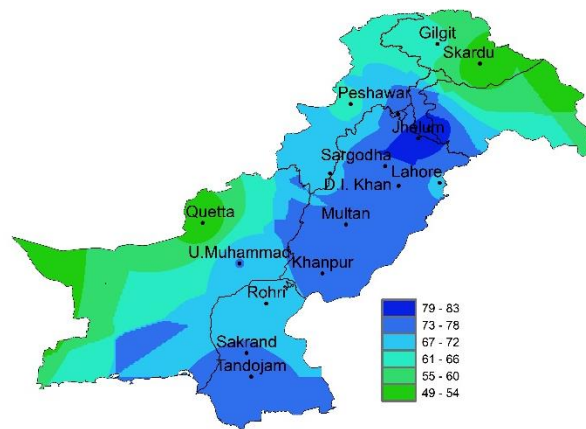


Figure.3: Relative Humidity in Percentage (%)

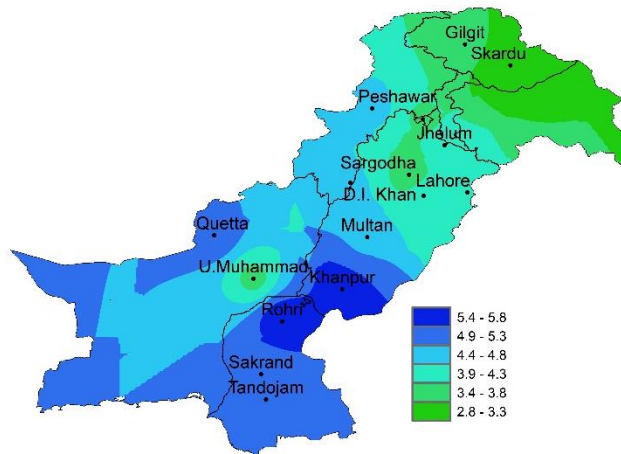


Figure.4: Reference Crop Evapotranspiration ET0 (mm/day)

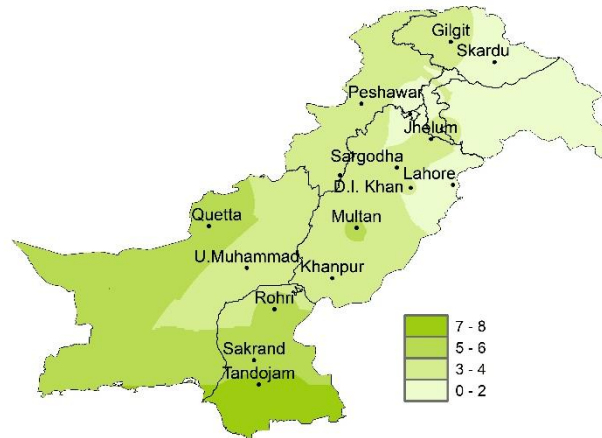


Figure 5: Wind Speed in kilometer per hour (km/h)

2.12 Rohri

Rainfall reported as 22.0 mm during the decade; however, weather remained partially cloudy during the decade. Average relative humidity recorded as 68%. Mean day temperature was 35.7°C while night temperature recorded as 27.8°C with 87.6 hours bright sunshine duration. Mean wind direction as *north easterly*.

2.13 D.I. Khan

Rainfall reported as 39.5 mm during the decade; however, weather remained partially cloudy for 09 days. Average relative humidity recorded as 71%. Mean day temperature was 34.9°C while night temperature recorded as 25.6°C with 65.7 hours bright sunshine duration. Wind speed recorded as 3.3 km/hr with mean wind direction as *north easterly*.

2.14 Peshawar

Rainfall reported as 1.0 mm during the decade; however, weather remained partially cloudy during the decade. Average relative humidity recorded as 65%. Mean day temperature was 35.8°C while night temperature recorded as 24.9°C with 63.7 hours bright sunshine duration. Wind speed recorded as 4.1 km/hr with mean wind direction as *north easterly*.

2.15 Skardu

Rainfall reported as 17.9 mm during the decade; however, weather remained partially cloudy for 07 days during the decade. Average relative humidity recorded as 50%. Mean day temperature was 27.0°C while night temperature recorded as 14.4°C with 40.2 hours bright sunshine duration. Wind speed recorded as 0.4 km/hr with mean wind direction as *north-north easterly*.

2.16 Gilgit

Rainfall reported as 21.8 mm during the decade; however, weather remained partially cloudy during the decade. Average relative humidity recorded as 61%. Mean day temperature was 29.5°C while night temperature recorded as 17.6°C with 44.5 hours bright sunshine duration. Wind speed recorded as 3.2 km/hr with mean wind direction as *variable*.

Ten Days Weather Advisory for Farmers
(1st to 10th September 2024)**3.1 Temperature Forecast**

Normal mean temperature is likely over most parts of the country.

3.2 Wind Forecast

Generally, normal wind patterns may prevail in most of the agricultural plains of the country.

3.3 Rain Forecast**❖ Punjab:**

Rain-wind/thundershower is likely in most parts of the country during first half of the decade. Whereas in Potohar region during the decade.

❖ Khyber Pakhtunkhwa:

Rain-wind/thundershower is likely in the province during first half of the decade.

❖ Sindh:

Mainly hot and dry weather is expected in most parts of the Province. However rain-wind/thundershower is likely during first half of the decade.

❖ Baluchistan:

Mainly hot and dry weather is expected in most parts of the Province. However, rain-wind/thundershower is likely in northeast/southeast during first half of the decade.

❖ Gilgit-Baltistan:

Rain-wind/thundershower is likely in Gilgit Baltistan during of the decade.

❖ Kashmir:

Rain-wind/thundershower is likely in Kashmir during of the decade.

3.4 Advisory for Farmers

Farmers are advised to follow the weather forecast to proceed for any field activity.