

Decadal Agromet Bulletin of Pakistan



Highlights...

- ❖ Moderate to heavy amount of rainfall was reported from most parts of the country while isolated heavy to very heavy showers were reported from northeast KPK, northeast & central part of Punjab and Potohar Region.
- ❖ While light rain was reported from Gilgit-Baltistan during the decade.
- ❖ Highest amount of rainfall recorded was 439.83 mm at Lahore during the last decade.
- ❖ Highest maximum temperature recorded as 45.0°C at Nokkudi during the last decade.
- ❖ Rain-windstorm/thundershower (with scattered heavy falls) is expected in most parts of the country during the decade.
- ❖ In case of heavy rainfall, remove extra standing water from the fields of peanut to avoid fungal attack.
- ❖ In case of weeds growth, plan to remove or control their growth in the field.
- ❖ Farmers are advised to follow the weather forecast prior to proceed for any field activity.

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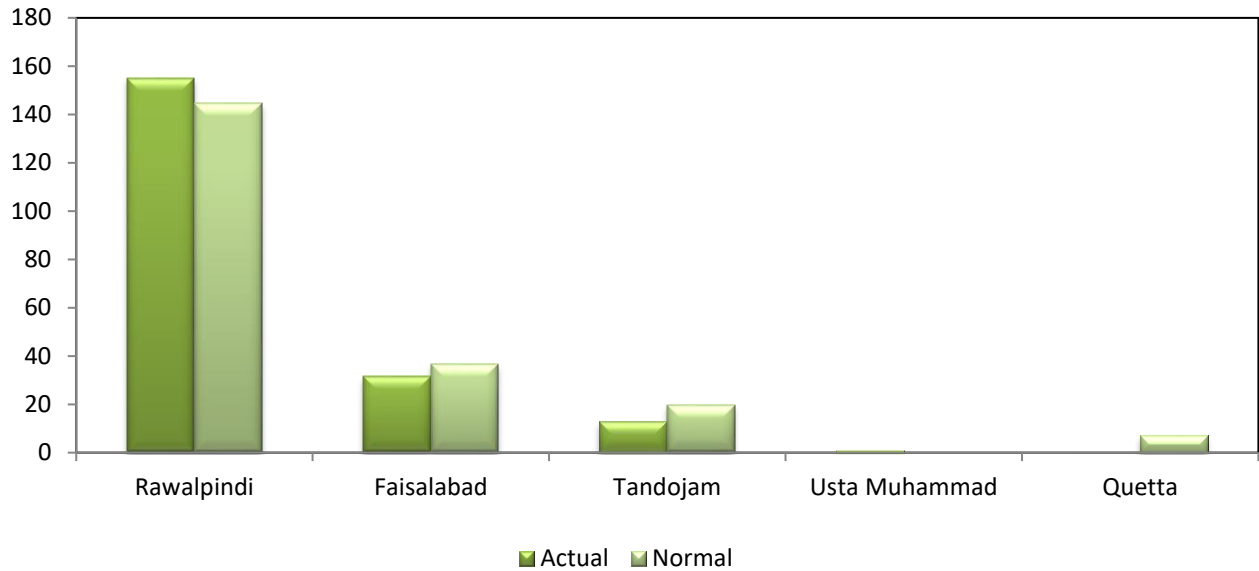
Meteorological Conditions during 3rd Decade of July 2024

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	144.6	155.2	10.6	0.9	0.4	29.6	32.1	31.4	31.0	30.8	30.8	30.5	72	65.3	2.8	4.6
2	Faisalabad	36.7	31.6	-5.1	1.1	2.0	33.4	35.5	34.5	35.0	34.6	***	33.8	68	80.8	3.8	5.6
3	Jhelum	115.6	60.6	-55.0	0.7	2.4	31.1	34.1	33.5	32.9	32.3	32.4	***	77	63.7	4.0	4.7
4	Lahore	87.5	133.0	45.5	-1.3	0.5	30.6	32.5	32.5	32.0	31.5	***	30.7	64	41.6	1.5	3.8
5	Sargodha	59.4	44.2	-15.2	2.6	1.8	34.2	37.9	37.1	36.2	35.6	***	***	63	**	4.4	5.5
6	Multan	18.9	0.0	-18.9	3.3	3.1	36.6	***	***	***	***	***	***	53	74.1	8.0	6.9
7	Khanpur	21.5	18.4	-3.1	3.9	3.5	36.5	***	41.0	40.9	40.8	40.4	37.4	56	97.5	**	7.5
8	Tandojam	19.7	12.9	-6.8	-1.0	0.7	32.3	***	38.2	35.9	35.0	34.8	34.9	70	62.2	7.9	5.5
9	Sakrand	46.3	5.2	-41.1	1.4	2.9	34.8	45.5	***	***	***	***	***	61	91.1	6.8	6.8
11	Rohri	19.7	0.0	-19.7	2.9	3.6	36.4	***	***	***	***	***	***	51	107.3	**	7.0
12	D.I Khan	30.0	0.0	-30.0	3.2	3.4	35.3	36.8	36.0	13.1	***	23.2	***	65	65.7	4.1	5.4
13	Peshawar	32.2	14.0	-18.2	1.9	-0.3	32.3	34.2	33.9	32.8	32.2	31.4	30.4	66	70.4	4.8	5.4
14	Usta M.	0.0	1.0	1.0	0.0	0.0	35.3	40.6	41.2	41.0	***	***	39.5	51	80.0	5.8	7.0
15	Quetta	7.3	0.2	-7.1	1.0	1.2	29.5	37.8	35.5	32.3	31.5	31.4	29.1	37	80.4	4.1	5.6
16	Skardu	5.4	0.1	-5.3	2.1	1.0	26.0	***	***	***	***	***	***	32	81.8	1.5	4.5
17	Gilgit	8.0	7.0	-1.0	2.4	1.4	28.7	***	***	***	***	***	***	48	85.4	2.6	5.2

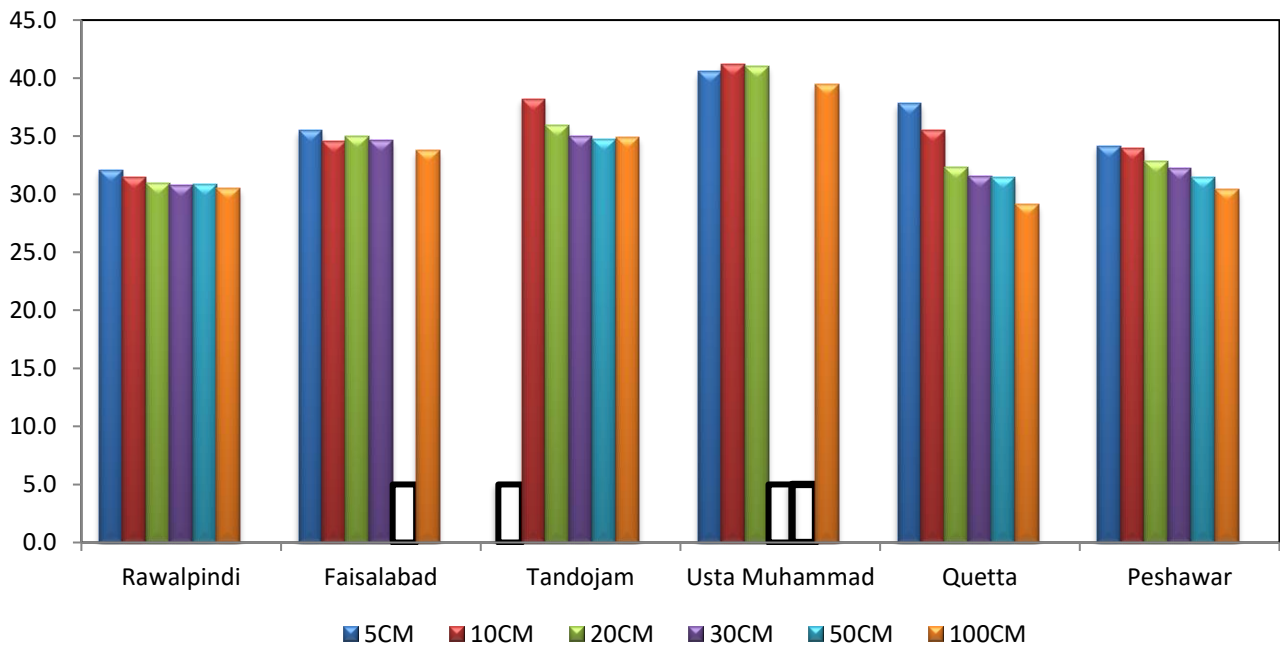
Table-1: Meteorological parameters for selected station of Pakistan. "Dep" in the table stands for difference from climatic normal, i.e. actual value minus normal. The climatic normally used in the Bulletin is extracted from the 2007 - 2016 observed data. 'ETo' stands for reference crop Evapotranspiration***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

Graph at RAMCs during July 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 July 2024)

Moderate to heavy amount of rainfall was reported from most parts of the country while isolated heavy to very heavy showers were reported from northeast KPK, northeast & central part of Punjab and Potohar Region. While light rain was reported from Gilgit-Baltistan during the decade.

1.1 Punjab

Moderate to heavy rain (with isolated heavy to very heavy falls in Potohar region, northeastern and central parts) was reported from the province. The decadal maximum and minimum temperatures rose above normal by 1.6°C and 2.0°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded 65%, 70.5hrs, 4.1km/hr and 5.5mm/day respectively.

1.2 Sindh

Moderate to heavy rain was reported from the province. The decadal maximum and minimum temperatures rose above normal by 1.1°C and 2.4°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 61%, 86.8hrs, 7.3km/hr and 6.4mm/day respectively.

1.3 Khyber Pakhtunkhwa

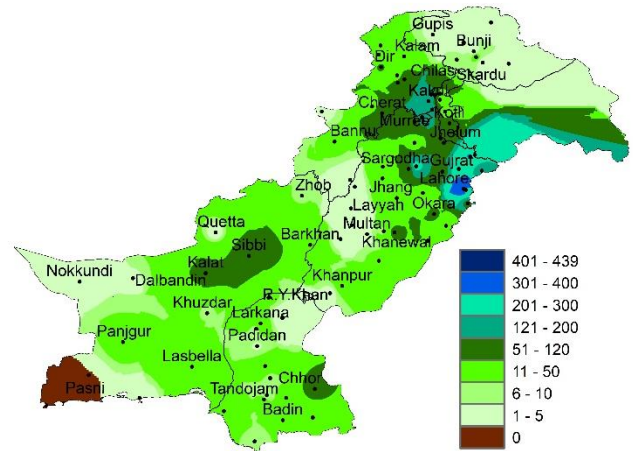
Moderate to heavy rain (with isolated heavy falls in northeastern parts) was reported from the province. The decadal maximum and minimum temperatures rose above normal by 2.5°C and 1.5°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 66%, 68.0hrs, 4.4km/hr and 5.4mm/day respectively.

1.4 Baluchistan

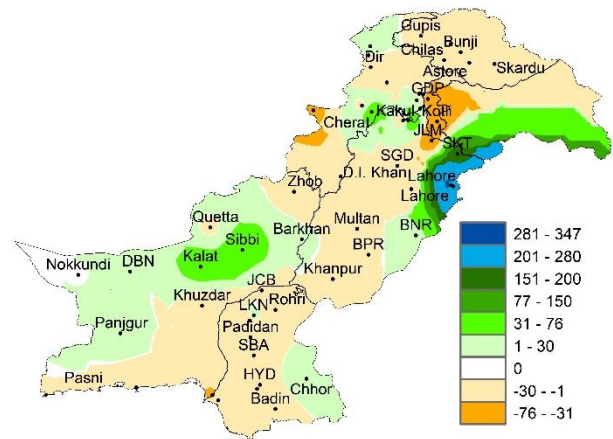
Moderate to heavy rain was reported from the province. The decadal maximum and minimum temperatures remained near normal in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 44%, 80.0hrs, 4.9km/hr and 6.3 mm/day respectively.

1.5 Gilgit-Baltistan and Azad Jammu & Kashmir.

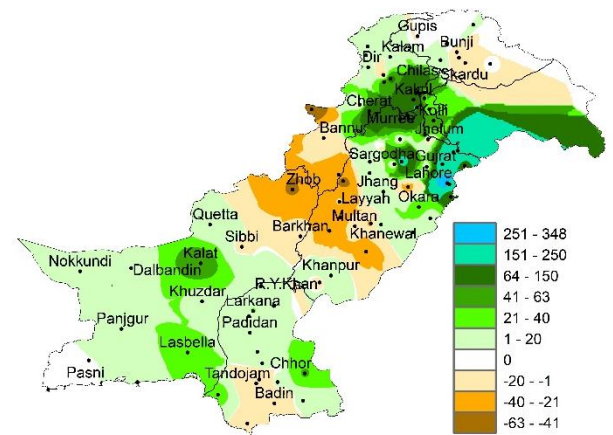
Light rain was reported from Gilgit-Baltistan and light to moderate rain was observed in Kashmir during the decade. The decadal maximum and minimum temperatures rose above normal by 2.2°C and 1.1°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 40%, 83.6hrs, 2.05km/hr and 4.8mm/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 July 2024)**

2.1 RAMC, Rawalpindi (Potohar region)

Rainfall reported as 155 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 23.8°C with 65.3 hours bright sunshine duration. Wind speed recorded as 2.8 km/hr with mean wind direction *south easterly*.

2.2 RAMC, Faisalabad (Central Punjab)

Rainfall reported as 31.6 mm during the decade; however, weather remained partially cloudy during the decade. Average relative humidity recorded as 68%. Mean day temperature was 37.7°C while night temperature recorded as 29.1°C with 80.8 hours bright sunshine duration. Wind speed recorded as 3.8 km/hr with mean wind direction *south easterly*.

Cotton: *Very good, Flowering completed.*

2.3 RAMC, Tandojam (Lower Sindh)

Rainfall reported as 12.9 mm during the decade; however, weather remained partially cloudy during decade. Average relative humidity recorded as 70%. Mean day temperature was 36.8°C while night temperature recorded as 27.7°C. Wind speed recorded as 7.9 km/hr with mean wind direction *south westerly*.

Cotton: *Fair, Flowering stage.*

2.4 RAMC, Usta Muhammad (Eastern Baluchistan)

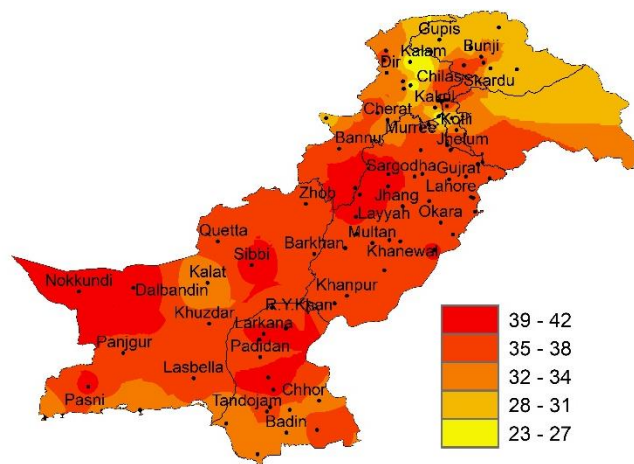
Rainfall reported as 1.0 mm during the decade; however, weather remained partially cloudy during the decade. Average relative humidity recorded as 51%. Mean day temperature was 42.3°C while night temperature recorded as 28.3°C. Wind speed recorded as 5.8km/hr with mean wind direction *south easterly*.

Rice: *Good, Germination.*

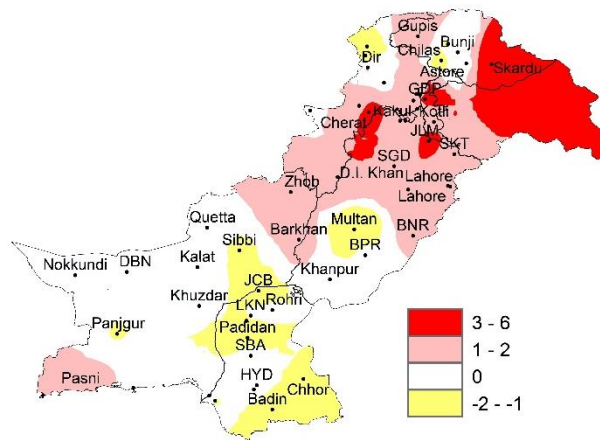
2.5 RAMC, Quetta (Northern Baluchistan)

Rainfall reported as 0.2 mm during the decade; however, weather remained partially cloudy during the decade. Average relative humidity recorded as 37%. Mean day temperature was 36.9°C while night temperature recorded as 22°C with 80.4 hours bright sunshine duration. Wind speed recorded as 4.1 km/hr with mean wind direction *south westerly*.

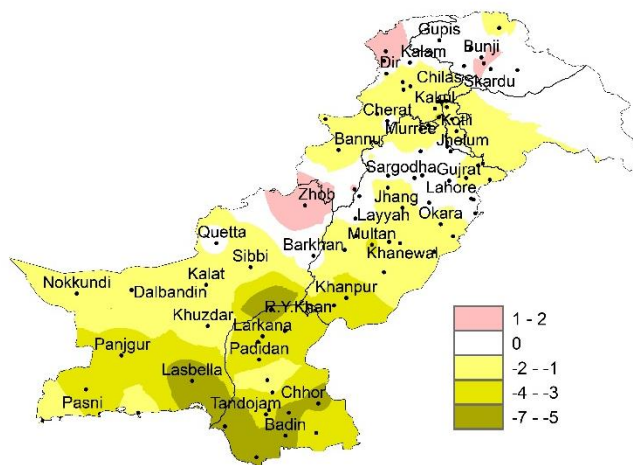
Wheat: *Nil.*



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

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

2.6 **Jhelum**

Rainfall reported as 60.6 mm during the decade; however, weather remained partially cloudy during the decade. Average relative humidity recorded as 77%. Mean day temperature was 35.3°C while night temperature recorded as 26.9°C with 63.7 hours bright sunshine duration. Wind speed recorded as 4.0 km/hr with mean wind direction *north westerly*.

2.7 **Lahore**

Rainfall reported as 439.83 mm during the decade; however, weather remained partially cloudy for 09 days. Average relative humidity recorded as 64%. Mean day temperature was 33.6°C while night temperature recorded as 27.5°C with 41.6 hours bright sunshine duration. Wind speed recorded as 1.5 km/hr with mean wind direction *north easterly*.

2.8 **Sargodha**

Rainfall reported as 44.2 mm during the decade; however, weather remained partially cloudy for 09 days. Average relative humidity recorded as 63%. Mean day temperature was 39.2°C while night temperature recorded as 29.1°C. Wind speed recorded as 4.4 km/hr with mean wind direction *southerly*.

2.9 **Multan**

Rainfall reported as 0.01 mm during the decade; however, weather remained partially cloudy during the decade. Average relative humidity recorded as 53%. Mean day temperature was 41.3°C while night temperature recorded as 31.8°C with 74.1 hours bright sunshine duration. Wind speed recorded as 8.0km/hr with mean wind direction *south westerly*.

2.10 **Khanpur**

Rainfall reported as 18.4 mm during the decade; however, weather remained partially cloudy during the decade. Average relative humidity recorded as 56%. Mean day temperature was 42.4°C while night temperature recorded as 30.5°C with 97.5 hours bright sunshine duration. Mean wind direction *south westerly*.

2.11 **Sakrand**

Rainfall reported as 5.2 mm during the decade; however, weather remained partially cloudy for 09 days. Average relative humidity recorded as 61%. Mean day temperature was 40.3°C while night temperature recorded as 29.3°C with 91.1 hours bright sunshine duration. Wind speed recorded as 6.8 km/hr with mean direction south easterly.

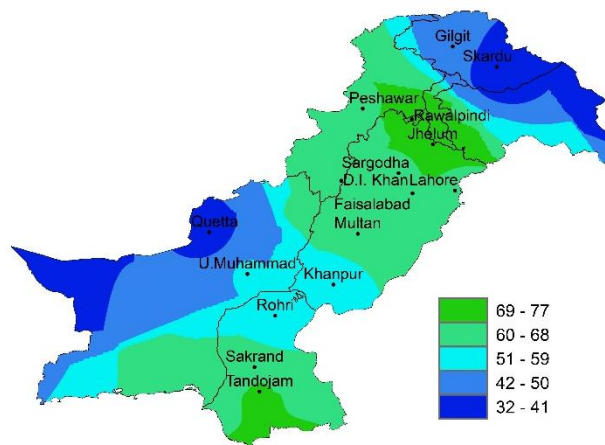


Figure.3: Relative Humidity in Percentage (%)

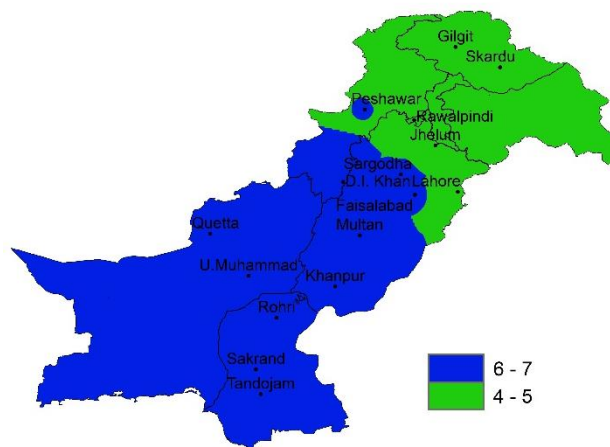


Figure.4: Reference Crop Evapotranspiration ET0 (mm/day)

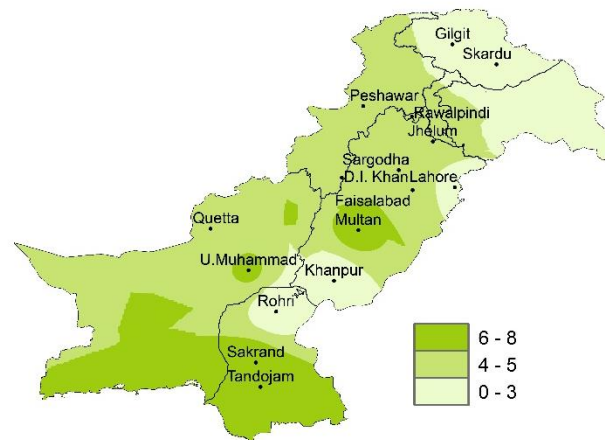


Figure 5: Wind Speed in kilometer per hour (km/h)

2.12 Rohri

Rainfall reported as 0.01 mm during the decade; however, weather remained partially cloudy for 09 days. Average relative humidity recorded as 51%. Mean day temperature was 42.4°C while night temperature recorded as 30.3°C with 107.3 hours bright sunshine duration. Mean wind direction as *variable*.

2.13 D.I. Khan

Rainfall reported as 0.01 mm during the decade; however, weather remained partially cloudy for 09 days. Average relative humidity recorded as 65%. Mean day temperature was 40.8°C while night temperature recorded as 29.8°C with 65.7 hours bright sunshine duration. Wind speed recorded as 4.1 km/hr with mean wind direction as *south easterly*.

2.14 Peshawar

Rainfall reported as 14.0 mm during the decade; however, weather remained partially cloudy during the decade. Average relative humidity recorded as 66%. Mean day temperature was 38.5°C while night temperature recorded as 26.0°C with 70.4 hours bright sunshine duration. Wind speed recorded as 4.8 km/hr with mean wind direction as *north westerly*.

2.15 Skardu

Rainfall reported as 0.1 mm during the decade; however, weather remained partially cloudy for 02 days during the decade. Average relative humidity recorded as 32%. Mean day temperature was 34.3°C while night temperature recorded as 17.6°C with 81.8 hours bright sunshine duration. Wind speed recorded as 1.5 km/hr with mean wind direction as *east south-easterly*.

2.16 Gilgit

Rainfall reported as 7.0 mm during the decade; however, weather remained partially cloudy during the decade. Average relative humidity recorded as 48%. Mean day temperature was 38.0°C while night temperature recorded as 19.3°C with 85.4 hours bright sunshine duration. Wind speed recorded as 2.6 km/hr with mean wind direction as *south westerly*.

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

Nearly 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-windstorm/thundershower is expected in most parts of the province during the decade, whereas scattered heavy falls are also likely during 1st half of decade.

❖ Khyber Pakhtunkhwa:

Rain-windstorm/thundershower (with scattered heavy falls) is expected in most parts of the province during the decade.

❖ Sindh:

Rain-windstorm/thundershower (with few heavy falls) is expected in most parts of the province during the first half, whereas hot and humid/partially cloudy weather during 2nd half of the decade.

❖ Baluchistan:

Rain-windstorm/thundershower (with few heavy falls) is expected in most parts of the province during the first half, whereas hot and humid/partially cloudy weather during 2nd half of the decade.

❖ Gilgit-Baltistan:

Mainly partly cloudy to cloudy weather conditions with rain, wind/thunderstorm is expected during first half, whereas dry weather during 2nd half of the decade.

❖ Kashmir:

Rain-windstorm/thundershower (with scattered heavy falls) is expected in most parts during the decade.

3.4 Advisory for Farmers

- In case of heavy rainfall, remove extra standing water from the fields of peanut to avoid fungal attack.
- In case of weeds growth, plan to remove or control their growth in the field.
- Farmers are advised to follow the weather forecast prior to proceed for any field activity.