

Decadal Agromet Bulletin of Pakistan



Highlights...

- ❖ Light to moderate amount of rainfall (few heavy falls in upper Khyber Pakhtunkhwa and upper Punjab) was reported from different parts of the country. While hot and dry weather also prevailed in central/south Punjab, Sindh and Balochistan.
- ❖ Highest amount of rainfall recorded was 71.0 mm at Malamjabba during the last decade.
- ❖ Highest maximum temperature recorded as 40.0°C at Shaheed Benazirabad and Dadu during the last decade.

Mainly hot and dry weather is expected in most parts of the country during the decade. However, rain-wind/thunderstorm is likely in Southeastern Sindh and Gilgit Baltistan during mid of the decade.

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

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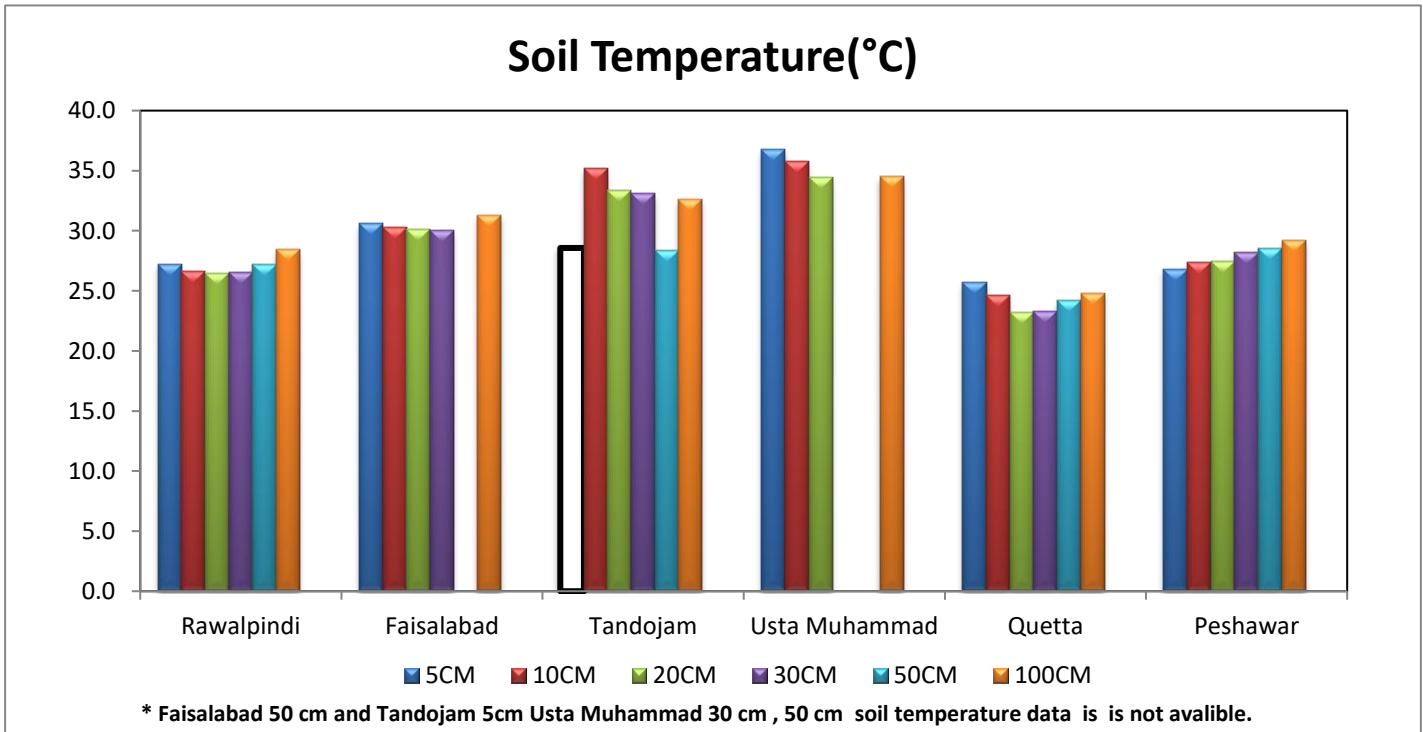
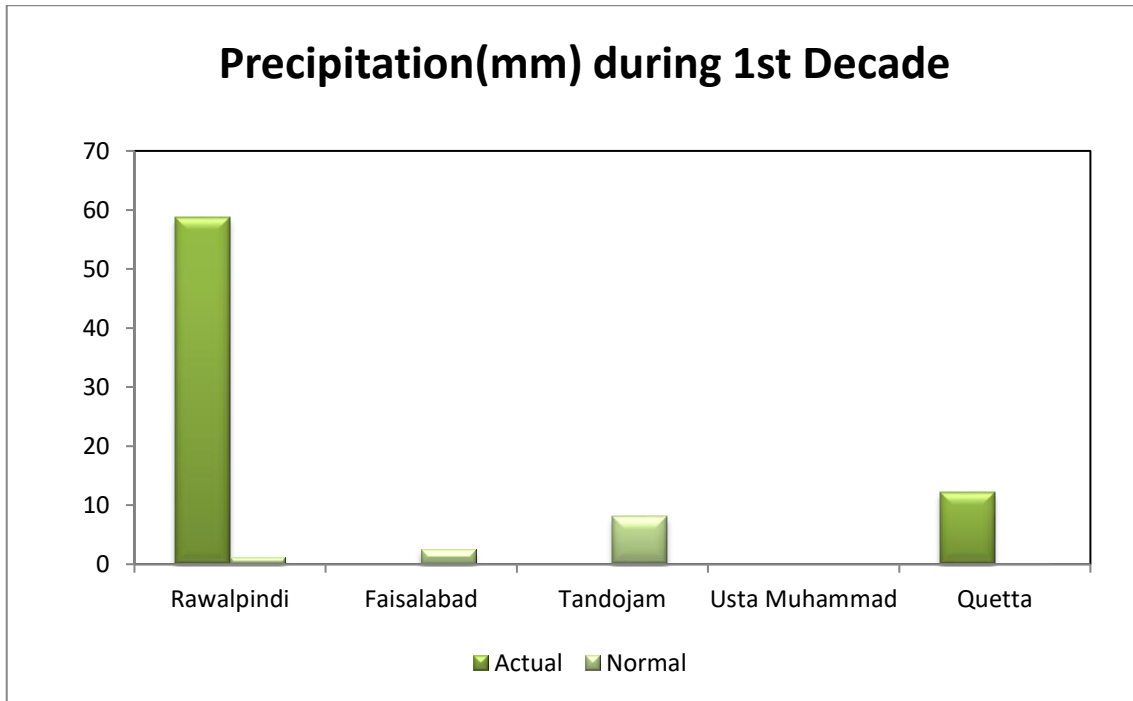
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Meteorological Conditions during 1st Decade of October 2024

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	1.2	58.7	57.5	9.5	10.9	25.3	27.2	26.6	26.4	26.6	27.2	28.5	58.8	88.7	1.4	3.2
2	Faisalabad	2.4	0.0	-2.4	-0.1	3.1	29.2	30.6	30.3	30.1	30.0	***	31.3	62.0	91.2	2.2	3.8
3	Jhelum	3.6	35.0	31.4	-0.8	0.2	27.5	28.6	28.1	28.0	27.7	28.4	***	68.0	89.7	0.1	3.8
4	Lahore	0.6	6.8	6.2	-0.5	0.1	28.7	***	***	***	***	***	***	60.0	81.1	1.1	3.3
5	Sargodha	1.5	1.0	-0.5	-0.5	1.3	29.3	32.5	31.8	31.0	31.0	***	***	60.0	92.4	1.7	3.7
6	Multan	1.7	0.0	-1.7	0.7	2.7	30.9	***	***	***	***	***	***	55.0	100.7	3.7	5.1
7	Khanpur	0.0	0.0	0.0	1.3	3.4	31.6	***	33.3	33.9	34.3	34.3	33.3	60.0	87.2	**	5.4
8	Tandojam	8.1	0.0	-8.1	0.4	2.5	30.6	***	35.2	33.4	33.1	32.9	32.6	56.0	89.2	6.2	4.7
9	Sakrand	0.0	0.0	0.0	1.5	3.5	31.8	43.3	***	***	***	***	***	55.0	100.7	3.7	5.0
11	Rohri	0.0	0.0	0.0	-0.1	2.1	31.9	***	***	***	***	***	***	54.9	94.1	3.1	4.7
12	D.I Khan	3.1	0.0	-3.0	0.8	2.7	30.1	30.7	30.5	31.8	***	20.4	***	56.0	84.6	2.9	4.0
13	Peshawar	10.5	37.0	26.5	0.5	-0.2	26.9	26.8	27.4	27.5	28.2	28.5	29.2	61.0	74.9	1.8	3.2
14	Usta M.	0.0	0.0	0.0	0.0	0.0	29.7	36.8	35.8	34.4	***	***	34.5	63.0	**	2.6	3.6
15	Quetta	0.1	12.2	12.1	-1.6	2.0	19.6	25.7	24.6	23.2	23.3	24.2	24.8	35.3	95.0	5.2	4.1
16	Skardu	1.2	0.0	-1.2	0.0	0.8	15.5	***	***	***	***	***	***	43.0	47.6	1.7	2.3
17	Gilgit	1.9	4.3	2.4	0.1	3.3	19.6	***	***	***	***	***	***	56.3	49.3	2.2	2.2

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 normal 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 October 2024



Past Weather (01st to 10th October 2024)

Light to moderate amount of rainfall (few heavy falls from upper KPK and upper Punjab) was reported from different parts of the country. While hot and dry weather also prevailed in central / south Punjab, Sindh and Balochistan.

1.1 Punjab

Light to moderate rain (few heavy falls from upper areas) observed from different parts of the province. The decadal maximum and minimum temperatures rose above normal by 1.4°C and 3.1°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded 61%, 90.1hrs, 1.7km/hr and 4.0mm/day respectively.

1.2 Sindh

Light rain observed from lower parts of the province. The decadal maximum and minimum temperatures rose above normal by 0.6°C and 2.7°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 55%, 94.7hrs, 4.3km/hr and 4.8mm/day respectively.

1.3 Khyber Pakhtunkhwa

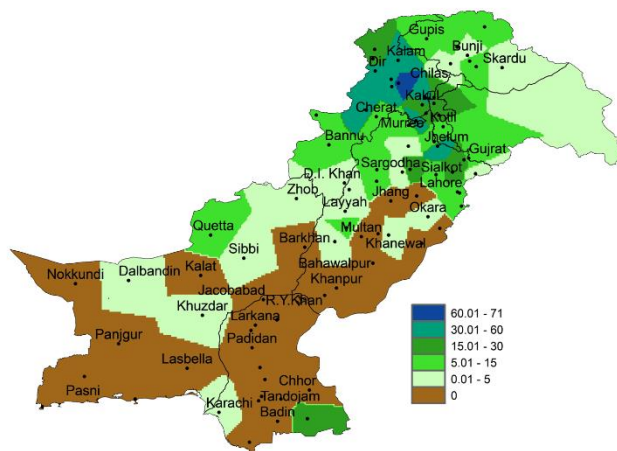
Light to moderate rain (few heavy falls from upper parts) observed from different parts of the province. The decadal maximum and minimum temperatures rose above normal by 0.6°C and 1.3°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 59%, 79.8hrs, 2.4km/hr and 3.6mm/day respectively.

1.4 Baluchistan

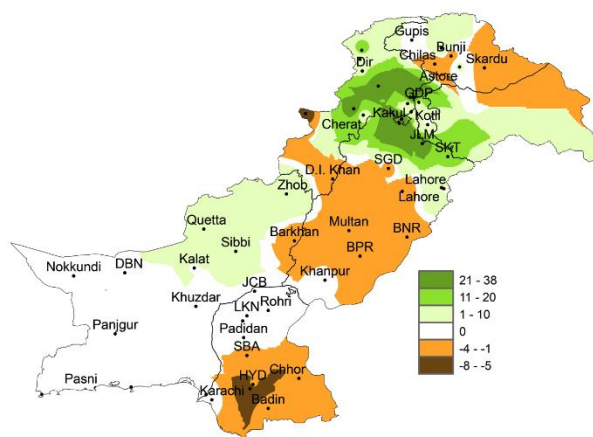
Light rain was reported from the province. The decadal maximum was observed slightly below normal by -0.8°C and minimum temperatures rose above normal by 1.0°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 49%, 95hrs, 3.9km/hr and 3.9 mm/day respectively.

1.5 Gilgit-Baltistan and Azad Jammu & Kashmir.

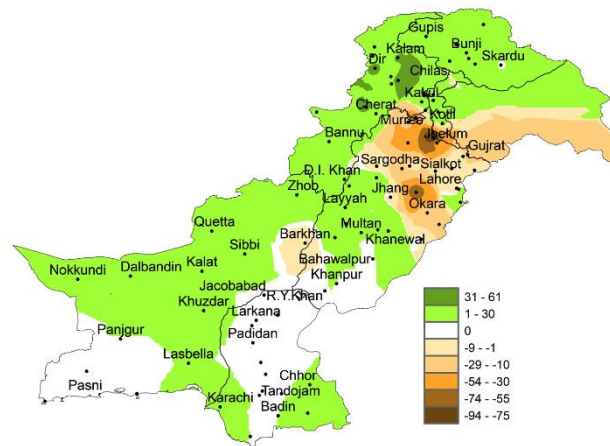
Light to moderate rain was reported from Kashmir and light rain in Gilgit-Baltistan. The decadal maximum and minimum temperatures rose above normal by 0.1°C and 2.0°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 50%, 48.5hrs, 2.0km/hr and 2.3mm/day 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 (01st to 10th October 2024)**

2.1 RAMC, Rawalpindi (Potohar region)

Rainfall reported as 58.7mm during the decade; however, weather remained partially cloudy for 05 days. Average relative humidity recorded as 59%. Mean day temperature was 33.5°C while night temperature recorded as 17.1°C with 88.7 hours bright sunshine duration. Wind speed recorded as 1.4 km/hr with mean wind direction *variable*.

2.2 RAMC, Faisalabad (Central Punjab)

Dry weather was observed during the decade; however, weather remained partially cloudy for 04 days. Average relative humidity recorded as 62%. Mean day temperature was 35.1°C while night temperature recorded as 23.3°C with 91.2 hours bright sunshine duration. Wind speed recorded as 2.2km/hr with mean wind direction *variable*.

Cotton: *Very good, First picking.*

2.3 RAMC, Tandojam (Lower Sindh)

Dry weather was observed during the decade; however, weather remained partially cloudy for 01 day. Average relative humidity recorded as 56%. Mean day temperature was 37.4°C while night temperature recorded as 23.7°C with 89.2hours bright sunshine duration. Wind speed recorded as 6.2km/hr with mean wind direction *south westerly*.

Cotton: *Good, Fourth picking.*

2.4 RAMC, Usta Muhammad (Eastern Baluchistan)

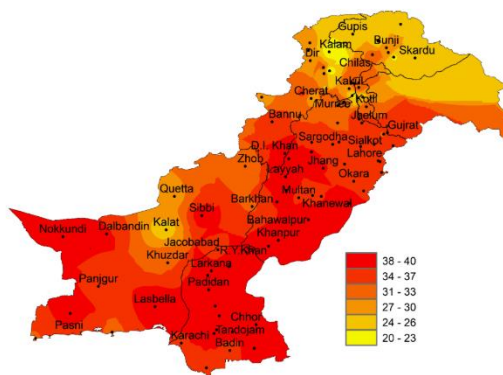
Rainfall reported as 0.01mm during the decade; however, weather remained partially cloudy for 03 days. Average relative humidity recorded as 63%. Mean day temperature was 36.6°C while night temperature recorded as 22.8°C. Wind speed recorded as 2.6 km/hr with mean wind direction *north easterly*.

Rice: *Good, Flowering.*

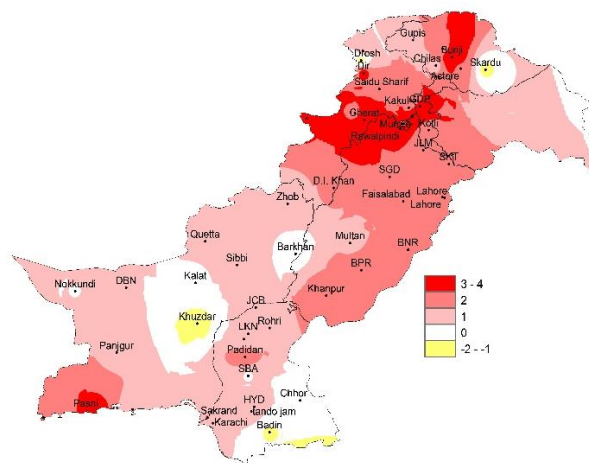
2.5 RAMC, Quetta (Northern Baluchistan)

Rainfall reported as 12.2mm during the decade; however, weather remained partially cloudy for 05 days. Average relative humidity recorded as 35%. Mean day temperature was 27.2°C while night temperature recorded as 11.9°C with 95.0hours bright sunshine duration. Wind speed recorded as 5.2km/hr with mean wind direction *north westerly*.

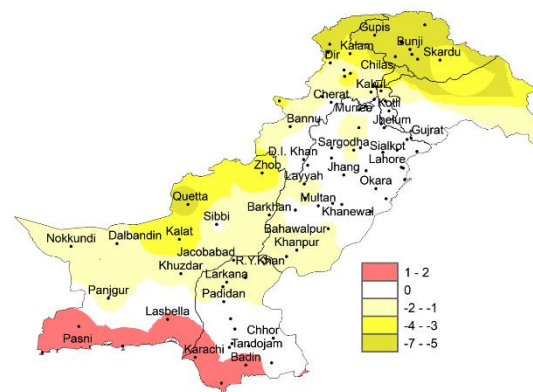
Wheat: *Nil.*



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 (01st to 10th October 2024)**

2.6 **Jhelum**

Rainfall reported as 35.0mm during the decade; however, weather remained partially cloudy for 03 days. Average relative humidity recorded as 68%. Mean day temperature was 33.9°C while night temperature recorded as 21.1°C with 89.7 hours bright sunshine duration. Wind speed recorded as 0.1 km/hr with mean wind direction *north westerly*.

2.7 **Lahore**

Rainfall reported as 35.0mm during the decade; however, weather remained partially cloudy for 03 days. Average relative humidity recorded as 60%. Mean day temperature was 33.6°C while night temperature recorded as 23.7°C with 81.1 hours bright sunshine duration. Wind speed recorded as 1.1 km/hr with mean wind direction *north westerly*.

2.8 **Sargodha**

Rainfall reported as 1.0mm during the decade; however, weather remained partially cloudy for 04 days. Average relative humidity recorded as 60%. Mean day temperature was 35.2°C while night temperature recorded as 23.4°C with 92.4hours bright sunshine duration. Wind speed recorded as 1.7km/hr with mean wind direction *variable*.

2.9 **Multan**

Rainfall reported as 0.01mm during the decade; however, weather remained partially cloudy for 05 days. Average relative humidity recorded as 51%. Mean day temperature was 36.9°C while night temperature recorded as 25.2°C with 72.8 hours bright sunshine duration. Wind speed recorded as 3.9 km/hr with mean wind direction *south westerly*.

2.10 **Khanpur**

Dry weather was reported during the decade; however, weather remained partially cloudy for 01 day. Average relative humidity recorded as 60%. Mean day temperature was 38.2 °C while night temperature recorded as 24.9°C with 87.2hours bright sunshine duration. Mean wind direction *south westerly*.

2.11 **Sakrand**

Dry weather was reported during the decade. Average relative humidity recorded as 55%. Mean day temperature was 38.7°C while night temperature recorded as 24.8 °C with 100.7hours bright sunshine duration. Wind speed recorded as 3.7 km/hr with mean direction south easterly.

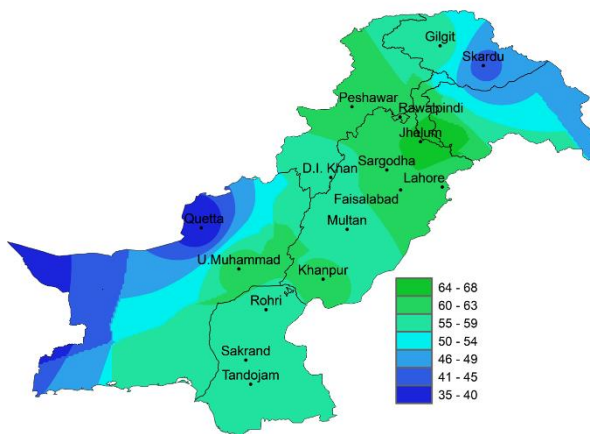


Figure.3: Relative Humidity in Percentage (%)

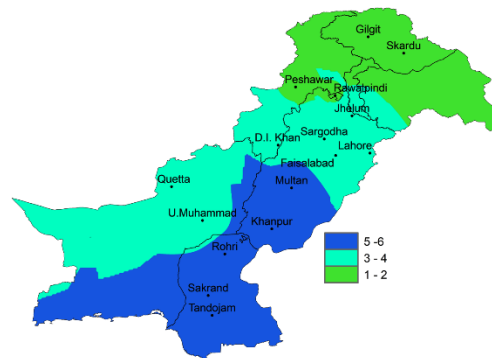


Figure.4: Reference Crop Evapotranspiration ETo (mm/day)

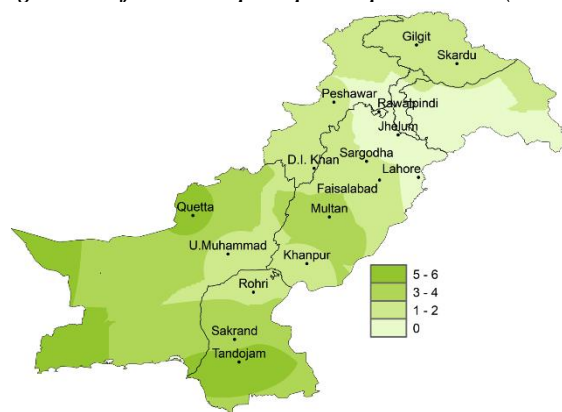


Figure 5: Wind Speed in kilometer per hour (km/h)

2.12 Rohri

Dry weather was reported weather during the decade; however, weather remained partially cloudy for 03 days. Average relative humidity recorded as 55%. Mean day temperature was 37.5 °C while night temperature recorded as 26.3°C with 94.1 hours bright sunshine duration. Wind speed recorded as 3.1km/hr with Mean wind direction as *south westerly*.

2.13 D.I. Khan

Dry weather was reported during the decade; however, weather remained partially cloudy for 04 days. Average relative humidity recorded as 56%. Mean day temperature was 36.6°C while night temperature recorded as 23.5°C with 84.6hours bright sunshine duration. Wind speed recorded as 3.4km/hr with mean wind direction as *east south easterly*.

2.14 Peshawar

Rainfall reported as 37.0 mm during the decade; however, weather remained partially cloudy for 04 days. Average relative humidity recorded as 61%. Mean day temperature was 33.9°C while night temperature recorded as 19.9 °C with 74.9 hours bright sunshine duration. Wind speed recorded as 1.8km/hr with mean wind direction as *north westerly*.

2.15 Skardu

Rainfall reported as 0.01 mm during the decade; however, weather remained partially cloudy for 04 days. Average relative humidity recorded as 43%. Mean day temperature was 24.0°C while night temperature recorded as 7.0°C with 47.6hours bright sunshine duration. Wind speed recorded as 1.7 km/hr with mean wind direction as *north-north easterly*.

2.16 Gilgit

Rainfall reported as 3.6 mm during the decade; however, weather remained partially cloudy for 09 days. Average relative humidity recorded as 56%. Mean day temperature was 27.9°C while night temperature recorded as 11.3°C with 49.3hours bright sunshine duration. Wind speed recorded as 2.2km/hr with mean wind direction as *variable*.

**Ten Days Weather Advisory for Farmers
(11th to 20th October 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:**

Mainly hot and dry weather is expected in most parts of the province during the decade.

❖ Khyber Pakhtunkhwa:

Mainly hot and dry is weather is expected in most parts of the Province during the decade. However, rain-wind/thundershower is likely on 16th,17th and 18th in upper parts.

Sindh:

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

❖ Baluchistan:

Mainly hot and dry weather is expected in most parts of the province during the decade.

❖ Gilgit-Baltistan:

Mainly dry weather is expected in most parts of Gilgit Baltistan. However, rain-wind/thundershower is expected during second half of the decade.

❖ Kashmir:

Mainly dry weather is expected in most parts of Kashmir. However, rain-wind/thundershower is expected during second half of the decade.

3.4 Advisory for Farmers

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