# **Decadal Agromet Bulletin of Pakistan**



# Highlights...

- ❖ Dry weather prevailed in most parts, while hot and dry in southern parts of the country. Light to moderate rainfall was also reported from upper KPK, Potohar region (Punjab), southeastern Sindh, Gilgit Baltistan and Kashmir.
- ❖ Highest amount of rainfall recorded as 61.0 mm at Malamjabba during the last decade.
- ❖ Highest maximum temperature recorded as 40.0°C at Shaheed Benazirabad during the last decade.
- Mainly dry weather is expected in most parts of the country. While cold in hilly areas during (morning/night). Smog may occur in plain areas of Punjab during morning/night. However, rain-wind/thunderstorm is likely in Potohar region (Punjab), upper KPK, Gilgit Baltistan and Kashmir during second half of the decade.
- Farmers are advised to view the weather forecast before any field activity.

# NATIONAL AGROMET CENTRE (NAMC) PAKISTAN METEOROLOGICAL DEPARTMENT SECTOR H-8/2, ISLAMABAD

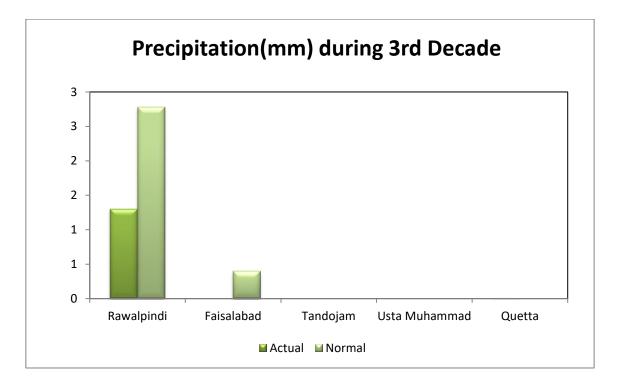
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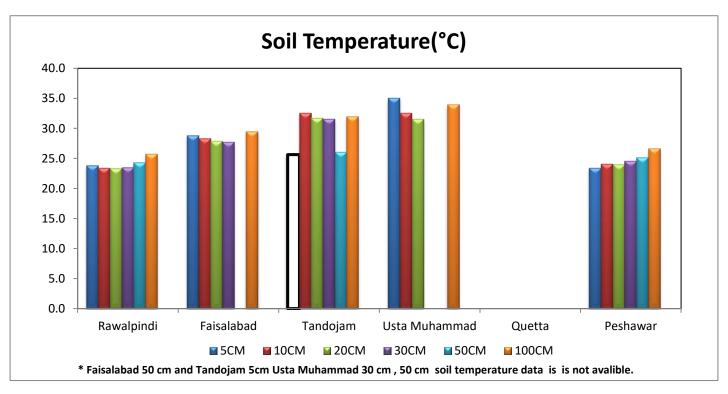
# Meteorological Conditions during 3<sup>rd</sup> Decade of October 2024

Sr. No.	Station	Precipitation (mm)			Air Temperature (°C)			Soil Temperatures (°C)						R.H	Sunshine	Wind	ETo
		Normal	Actual	Dep	Tmx Dep	Tmin Dep	Mean	5cm	10cm	20cm	30cm	50cm	100cm	(%)	Duration(hours)	Speed (km/hr)	(mm/day)
1	Rawalpindi	2.8	1.3	-1.5	2.2	2.5	23.1	23.8	23.4	23.3	23.4	24.3	25.7	60.2	81.7	0.9	2.2
2	Faisalabad	0.4	0.0	-0.4	2.8	5.6	27.6	28.8	28.3	27.8	27.7	***	29.5	53.0	92.6	1.7	3.1
3	Jhelum	3.0	0.0	-3.0	0.5	3.1	25.4	25.6	25.2	25.2	25.2	26.1	***	64.0	81.2	0.8	2.4
4	Lahore	0.6	0.0	-0.6	3.0	2.8	27.4	***	***	***	***	***	***	54.0	63.5	0.7	2.3
5	Sargodha	2.0	0.0	-2.0	2.1	3.7	27.1	29.1	28.4	28.4	28.6	***	***	57.0	69.5	1.9	2.7
6	Multan	0.0	0.0	0.0	2.5	5.5	28.7	***	***	***	***	***	***	49.0	103.5	1.8	3.3
7	Khanpur	0.0	0.2	0.2	3.7	3.8	28.6	***	30.3	30.7	31.1	31.4	31.8	57.0	89.8	**	2.8
8	Tandojam	0.0	0.0	0.0	3.5	2.8	29.8	***	32.5	31.7	31.5	31.7	31.9	55.0	89.7	1.7	3.7
9	Sakrand	0.0	0.0	0.0	2.3	5.0	30.3	38.8	***	***	***	***	***	49.0	103.5	1.8	3.8
11	Rohri	0.0	0.0	0.0	3.1	2.9	30.3	***	***	***	***	***	***	47.1	99.6	2.6	3.9
12	D.I Khan	1.7	0.0	-1.7	0.7	3.3	28.0	27.7	27.3	27.2	***	17.8	***	60.0	52.6	2.8	2.8
13	Peshawar	5.1	6.0	0.9	0.2	-0.7	23.7	23.4	24.0	23.9	24.5	25.1	26.6	63.0	68.2	1.4	2.3
14	Usta M.	0.0	0.0	0.0	0.0	0.0	26.7	35.0	32.5	31.5	***	***	33.9	50.0	0.0	1.7	3.0
15	Quetta	0.0	0.0	0.0	0.9	3.6	18.0	0.0	0.0	0.0	0.0	0.0	0.0	31.6	105.4	5.4	3.7
16	Skardu	0.4	17.8	17.4	-1.7	2.5	10.5	***	***	***	***	***	***	53.0	42.4	0.7	1.3
17	Gilgit	1.0	3.8	2.8	-0.2	4.5	16.4	***	***	***	***	***	***	55.9	58.9	1.9	1.9

**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 October 2024**





# Past Weather (21st to 31st October 2024)

Dry weather prevailed in most parts, while hot and dry in southern parts of the country. Light to moderate rainfall was also reported from upper KPK, Potohar region (Punjab), southeastern Sindh, Gilgit Baltistan and Kashmir.

#### **Punjab**

Mainly dry weather (Hot in southern parts) prevailed in most parts, whereas light rain reported from Potohar region of the province. The decadal maximum and minimum temperatures rose above normal by 2.4°C and 3.9°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded 56%, 83.1hrs, 1.3km/hr and 2.7mm/day respectively.

#### 1.1 Sindh

Mainly hot and dry weather prevailed in most parts, whereas light rain reported from southeastern parts of the province. The decadal maximum and minimum temperatures rose above normal by 3.0°C and 3.5°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 50%, 97.6hrs, 2.0km/hr and 3.8mm/day respectively.

#### 1.2 Khyber Pakhtunkhwa

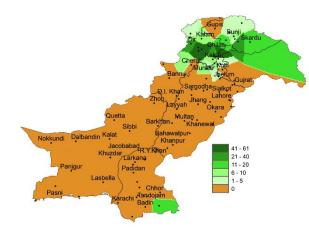
Light to moderate rainfall was reported from upper parts of the province. The decadal maximum and minimum temperatures rose above normal by 0.5°C and 1.3°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 62%, 60.4hrs, 2.1km/hr and 2.6mm/day respectively.

#### 1.3 Baluchistan

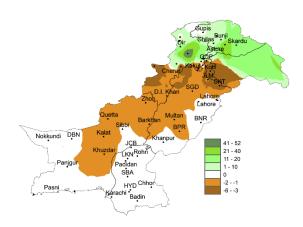
Dry weather (Hot in southern parts) prevailed in most parts of the province. The decadal maximum and minimum temperatures rose above normal by 0.4°C and 1.8°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 41%, 52.7hrs, 3.6km/hr and 3.4mm/day respectively.

#### 1.4 Gilgit-Baltistan and Azad Jammu & Kashmir.

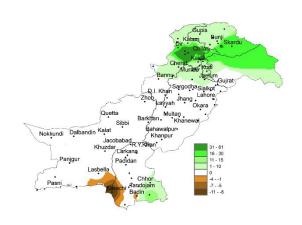
Light to moderate rainfall was reported from Gilgit-Baltistan and Kashmir. The decadal maximum temperature was observed below normal by -0.9 and minimum temperature rose above normal by 3.5°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 54%, 50.7hrs, 1.3km/hr and 1.6mm/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) <u>Past Weather for Major Agricultural Plains</u> (21<sup>st</sup> to 31<sup>st</sup> October 2024)

# 2.1 RAMC, Rawalpindi (Potohar region)

Rain was reported 1.3mm during the decade; however, weather remained partially cloudy for 06 days. Average relative humidity recorded as 60%. Mean day temperature was 31.4°C while night temperature recorded as 14.8°C with 81.7 hours bright sunshine duration. Wind speed recorded as 0.9km/hr with mean wind direction north westerly.

#### 2.2 RAMC, Faisalabad (Central Punjab)

Dry weather was observed during the decade; however, weather remained partially cloudy for 01 day. Average relative humidity recorded as 53%. Mean day temperature was 34.4°C while night temperature recorded as 20.8°C with 92.6 hours bright sunshine duration. Wind speed recorded as 1.7km/hr with mean wind direction south easterly.

Cotton: Very good, 2nd picking.

## 2.3 RAMC, Tandojam (Lower Sindh)

Dry weather with clear sky was observed during the decade. Average relative humidity recorded as 55%. Mean day temperature was 39.0°C while night temperature recorded as 20.6°C with 89.7 hours bright sunshine duration. Wind speed recorded as 1.7km/hr with mean wind direction *south easterly*. *Crop:* Land is being prepared for new crop.

#### 2.4 RAMC, Usta Muhammad (Eastern Baluchistan)

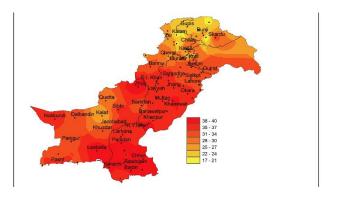
Dry weather with clear sky was observed during the decade. Average relative humidity recorded as 50%. Mean day temperature was 34.3°C while night temperature recorded as 19.0°C. Wind speed recorded as 1.7 km/hr with mean wind direction *south easterly*.

Rice: Good, maturity.

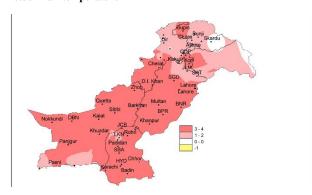
# 2.5 RAMC, Quetta (Northern Baluchistan)

Rain was reported 0.01mm during the decade; however, weather remained partially cloudy for 08 days. Average relative humidity recorded as 32%. Mean day temperature was 25.6°C while night temperature recorded as 10.3°C with 105.4hours bright sunshine duration. Wind speed recorded as 5.4km/hr with mean wind direction *north westerly*.

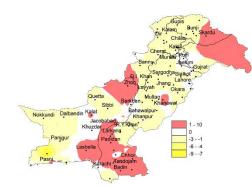
Wheat: Nil.



#### 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) <u>Past Weather or Sub-Regional Agricultural</u> Plains (21<sup>st</sup> to 31<sup>st</sup> October 2024)

#### 2.6 Jhelum

Dry weather was observed during the decade; however, weather remained partially cloudy for 05 days. Average relative humidity recorded as 64%. Mean day temperature was 32.1°C while night temperature recorded as 18.6°C with 81.2 hours bright sunshine duration. Wind speed recorded as 0.8 km/hr with mean wind direction *north westerly*.

#### 2.7 Lahore

Dry weather was observed during the decade; however, weather remained partially cloudy for 01 days. Average relative humidity recorded as 54%. Mean day temperature was 33.4°C while night temperature recorded as 21.3°C with 63.5 hours bright sunshine duration. Wind speed recorded as 0.7 km/hr with mean wind direction north *westerly*.

#### 2.8 Sargodha

Dry weather was observed during the decade; however, weather remained partially cloudy for 02 days. Average relative humidity recorded as 57%. Mean day temperature was 33.6°C while night temperature recorded as 20.5°C with 69.5hours bright sunshine duration. Wind speed recorded as 1.9km/hr with mean wind direction *variable*.

#### 2.9 Multan

Dry weather with clear skies was observed during the decade. Average relative humidity recorded as 53%. Mean day temperature was 35.1°C while night temperature recorded as 22.0°C with 85.4 hours bright sunshine duration. Wind speed recorded as 1.9 km/hr with mean wind direction *north easterly*.

## 2.10 Khanpur

Rain was reported 0.2mm during the decade; however, weather remained partially cloudy for 01 days. Average relative humidity recorded as 57%. Mean day temperature was 36.7 °C while night temperature recorded as 20.5 °C with 89.8 hours bright sunshine duration. Mean wind direction *south westerly*.

#### 2.11 Sakrand

Dry weather with clear skies was reported during the decade. Average relative humidity recorded as 49%. Mean day temperature was 38.3°C while night temperature recorded as 22.3 °C with 103.5hours bright sunshine duration. Wind speed recorded as 1.8 km/hr with mean direction north westerly.

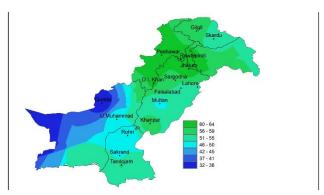


Figure.3: Relative Humidity in Percentage (%)



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



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

#### 2.12 Rohri

Dry weather with clear skies was reported weather during the decade. Average relative humidity recorded as 49%. Mean day temperature was 37.1°C while night temperature recorded as 23.4°C with 99.6 hours bright sunshine duration. Wind speed recorded as 2.6km/hr with Mean wind direction as *variable*.

#### 2.13 D.I. Khan

Dry weather was observed during the decade; however, weather remained partially cloudy for 02 days. Average relative humidity recorded as 60%. Mean day temperature was 34.5°C while night temperature recorded as 21.4°C with 52.6hours bright sunshine duration. Wind speed recorded as 2.8km/hr with mean wind direction as *south easterly*.

#### 2.14 Peshawar

Rain was reported 6.0mm during the decade; however, weather remained partially cloudy for 09 days. Average relative humidity recorded as 63%. Mean day temperature was 30.9°C while night temperature recorded as 16.5 °C with 68.2 hours bright sunshine duration. Wind speed recorded as 1.4km/hr with mean wind direction as *north westerly*.

#### 2.15 Skardu

Rain was reported 17.8mm during the decade; however, weather remained partially cloudy for 06 days. Average relative humidity recorded as 53%. Mean day temperature was 17.6°C while night temperature recorded as 3.4°C with 42.4 hours bright sunshine duration. Wind speed recorded as 0.7km/hr with mean wind direction as *south easterly*.

#### 2.16 Gilgit

Rain was reported 3.8mm during the decade; however, weather remained partially cloudy during the decade. Average relative humidity recorded as 56%. Mean day temperature was 24.8°C while night temperature recorded as 7.9°C with 58.9hours bright sunshine duration. Wind speed recorded as 1.9km/hr with mean wind direction as *south easterly*.

# Ten Days Weather Advisory for Farmers (1st to 10th November 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 dry weather (Smog is likely in plain areas during morning/night) is expected in most parts of the Province. However, rain-wind/thunderstorm is expected in Potohar region from 8<sup>th</sup> to 10<sup>th</sup> November during the decade.

# **\*** Khyber Pakhtunkhwa:

Mainly dry is weather is expected in most parts of the province. Whereas rain-wind/thunderstorm is expected from 09<sup>th</sup> to 10<sup>th</sup> November during the decade.

#### **Sindh:**

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

#### **❖** Baluchistan:

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

## **Gilgit-Baltistan:**

Mainly dry (cold in hilly areas during morning/night) weather is expected in Gilgit Baltistan. However, rain-wind/thunderstorm is likely during second half of the decade.

# **\*** Kashmir:

Mainly dry (cold in hilly areas during morning/night) weather is expected in Kashmir. However, rain-wind/thunderstorm is likely 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.