# **Decadal Agromet Bulletin of Pakistan**



## Highlights...

- Light to moderate (few heavy falls) amount of rainfall was reported from upper & centeral Punjab and upper KPK. Whereas light rainfall from, north Balochistan, GB and Kashmir. While hot and dry weather also prevailed elsewhere the country.
- ❖ Highest amount of rainfall recorded was 118.1 mm at Rawalpindi during the last decade.
- ❖ Highest maximum temperature recorded as 40.3°C at Khanpur during the last decade. Mainly hot and dry weather may prevail in most parts of the country. However, rainwind/thunderstorm is expected from 4<sup>th</sup> to 8<sup>th</sup> October in Punjab, Western & eastern parts of Sindh, KPK, North/South parts of Balochistan, GB and Kashmir.
- Farmers are advised to view the weather forecast before any field activity.

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

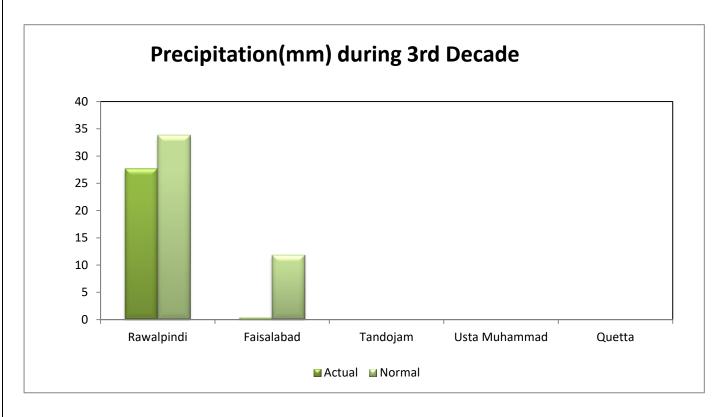
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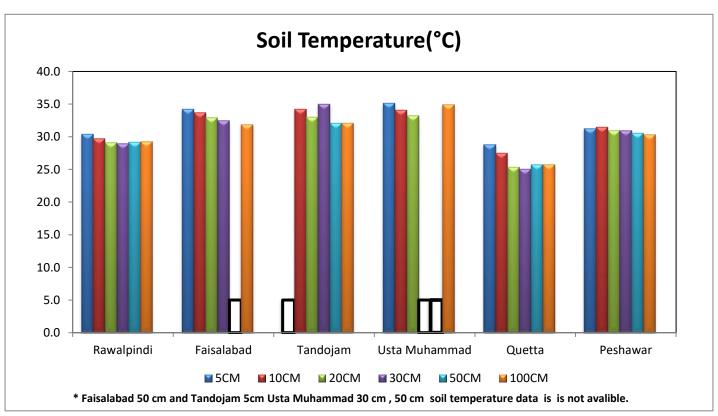
## Meteorological Conditions during 3rd Decade of September 2024

Sr. No.	Station	Precipitation (mm)			Air Temperature (°C)			Soil Temperatures (°C)						R.H	Sunshine	Wind	ЕТо
		Normal	Actual	Dep	Tmx Dep	Tmin Dep	Mean	5cm	10cm	20cm	30cm	50cm	100cm	(%)	Duration(hours)	Speed (km/hr)	(mm/day)
1	Rawalpindi	19.3	118.1	98.8	1.673	-7.7	23.1	29.8	29.2	29.6	28.7	29.0	29.3	66	78.1	1.4	3.9
2	Faisalabad	20.5	58.4	37.9	0.9	3.9	31.2	33.4	33.0	32.7	32.4	***	32.4	65	78.7	2.4	4.3
3	Jhelum	9.4	80.7	71.3	0.3	2.3	29.8	32.4	30.6	30.3	30.0	30.3	***	73	78.8	1.5	4.6
4	Lahore	10.8	4.8	-6.0	0.7	1.5	30.6	31.6	31.6	30.9	30.6	***	30.5	65	61.5	1.3	3.6
5	Sargodha	33.0	25.7	-7.3	0.7	-1.1	31.8	34.6	33.9	33.0	32.8	***	***	63	79.2	2.8	4.4
6	Multan	1.3	0.0	-1.3	1.8	2.5	32.5	***	***	***	***	***	***	54	103.7	4.6	5.2
7	Khanpur	0.0	0.0	0.0	3.7	4.1	33.8	***	35.6	35.7	35.8	36.8	35.2	59	96.0	0.0	6.0
8	Tandojam	0.4	0.0	-0.4	1.5	0.8	31.0	***	36.3	34.3	35.0	32.9	32.5	67	88.1	6.6	4.8
9	Sakrand	0.1	0.0	-0.1	2.9	4.2	33.2	45.0	***	***	***	***	***	54	103.7	4.6	5.3
11	Rohri	0.0	0.0	0.0	2.2	3.7	34.7	***	***	***	***	***	***	52	97.5	3.1	5.4
12	D.I Khan	6.7	0.0	-6.7	2.4	4.6	32.6	33.2	32.4	13.1	***	0.0	***	61	78.3	2.8	4.6
13	Peshawar	11.2	0.0	-11.2	2.2	2.8	30.0	31.6	31.8	31.1	31.0	30.5	30.3	61	66.2	3.5	4.3
14	Usta M.	0.0	0.0	0.0	0.0	0.0	32.3	38.5	37.3	35.3	***	***	35.7	62	0.0	2.4	2.1
15	Quetta	0.0	0.0	0.0	3.2	5.0	23.6	30.4	29.1	26.3	25.8	26.2	25.5	29	102.4	3.9	5.0
16	Skardu	1.4	0.2	-1.2	4.69	1.5	19.0	***	***	***	***	***	***	39	55.2	0.7	2.6
17	Gilgit	2.0	0.0	-2.0	4.9	4.5	23.8	***	***	***	***	***	***	47	76.6	2.0	3.8

**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 September 2024**





## Past Weather (20th to 30th September 2024)

Light to moderate (few heavy falls) amount of rainfall was reported from upper & centeral Punjab and upper KPK. Whereas light rainfall from, north Balochistan, GB and Kashmir. While hot and dry weather also prevailed elsewhere the country.

## 1.1 Punjab

Light to moderate rain observed from upper & centeral different parts of the province. The decadal maximum and minimum temperatures rose above normal by 1.4°C and 0.8°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded 64%, 82.3hrs, 4.2km/hr and 4.6mm/day respectively.

## 1.2 Sindh

Hot and dry weather reported from the province. The decadal maximum and minimum temperatures were observed slightly above normal by 1.5°C and 2.6°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 58%, 96.4hrs, 4.8km/hr and 5.2mm/day respectively.

## 1.3 Khyber Pakhtunkhwa

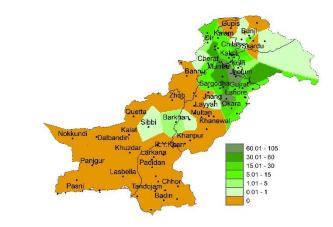
Light to moderate rain was reported from upper parts of the Province. The decadal maximum and minimum temperatures rose above normal by 1.1°C and 2.3°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 61%, 72.3hrs, 4.1km/hr and 4.5mm/day respectively.

## 1.4 Baluchistan

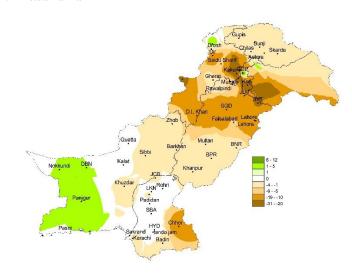
Light rain was reported from northern parts of the province. The decadal maximum and minimum temperatures rose above normal by 1.6°C and 2.5°C in the province Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 46%, 51.2hrs, 4.4km/hr and 3.6 mm/day respectively.

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

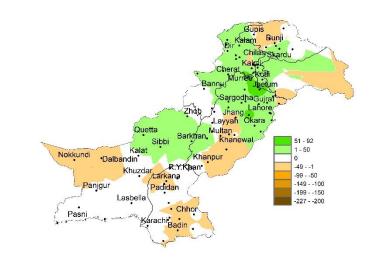
Light rain was reported from Kashmir and Gilgit-Baltistan. The decadal maximum and minimum temperatures rose above normal by 4.8°C and 3.0°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 43%, 65.9hrs, 3.0km/hr and 3.2mm/day respectively.



## 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> (20<sup>th</sup> to 30<sup>th</sup> September 2024)

## 2.1 RAMC, Rawalpindi (Potohar region)

Rainfall reported as 118.1mm during the decade; however, weather remained partially cloudy for 06days. Average relative humidity recorded as 66%. Mean day temperature was 34.6°C while night temperature recorded as 11.5°C with 78.1 hours bright sunshine duration. Wind speed recorded as 3.5 km/hr with mean wind direction *south easterly*.

## 2.2 RAMC, Faisalabad (Central Punjab)

Rainfall reported as 58.4mm during the decade; however, weather remained partially cloudy for 10days. Average relative humidity recorded as 65%. Mean day temperature was 36.3°C while night temperature recorded as 26.0°C with 78.7 hours bright sunshine duration. Wind speed recorded as 3.9km/hr with mean wind direction *easterly*.

Cotton: Very good, Maturity.

## •

## 2.3 RAMC, Tandojam (Lower Sindh)

Dry weather was observed during the decade; however. Average relative humidity recorded as 67%. Mean day temperature was 37.9°C while night temperature recorded as 24.1°C with 88.1hours bright sunshine duration. Wind speed recorded as 4.5km/hr with mean wind direction *south westerly*. *Cotton: Good, Ball opening*.

## 2.4 RAMC, Usta Muhammad (Eastern Baluchistan)

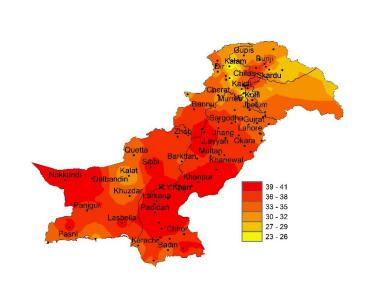
Dry weather during the decade; however, weather remained partially during the decade. Average relative humidity recorded as 62%. Mean day temperature was 38.4°C while night temperature recorded as 26.2°C. Wind speed recorded as 4.2 km/hr with mean wind direction *south easterly*.

## Rice: Good, shooting.

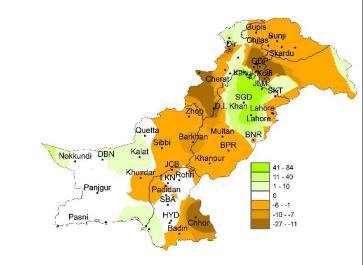
## 2.5 RAMC, Quetta (Northern Baluchistan)

Dry weather was observed during the decade; however, weather remained partially cloudy during the decade. Average relative humidity recorded as 29%. Mean day temperature was 32.8°C while night temperature recorded as 14.3°C with 102.4hours bright sunshine duration. Wind speed recorded as 4.5km/hr with mean wind direction *north westerly*.

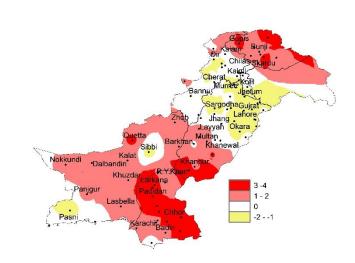
## Wheat: Nil.



## 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 (11<sup>th</sup> to 20<sup>th</sup> September 2024)

## 2.6 Jhelum

Rainfall reported as 80.7mm during the decade; however, weather remained partially cloudy for 5 days. Average relative humidity recorded as 73.%. Mean day temperature was 34.9°C while night temperature recorded as 24.6°C with 78.8 hours bright sunshine duration. Wind speed recorded as 4.1 km/hr with mean wind direction *westerly*.

## 2.7 Lahore

Rainfall reported as 4.8 mm during the decade; however, weather remained partially cloudy for 9 days. Average relative humidity recorded as 65%. Mean day temperature was 35.1°C while night temperature recorded as 26.1°C with 61.5 hours bright sunshine duration. Wind speed recorded as 3.2 km/hr with mean wind direction *north easterly*.

## 2.8 Sargodha

Rainfall reported as 25.7 mm during the decade; however, weather remained partially cloudy for 06 days. Average relative humidity recorded as 63%. Mean day temperature was 37.4°C while night temperature recorded as 26.2°C with 79.2hours bright sunshine duration. Wind speed recorded as 4.0km/hr with mean wind direction *variable*.

## 2.9 Multan

Dry weather was reported during the decade; however, weather remained partially cloudy for 08 days. Average relative humidity recorded as 54%. Mean day temperature was 38.3°C while night temperature recorded as 26.7°C with 103.7hours bright sunshine duration. Wind speed recorded as 4.8 km/hr with mean wind direction *south*.

## 2.10 Khanpur

Dry weather was reported during the decade; however, weather remained partially cloudy during the decade. Average relative humidity recorded as 59%. Mean day temperature was 40.3 °C while night temperature recorded as 27.3 °C with 96.0 hours bright sunshine duration. Mean wind direction *south westerly*.

## 2.11 Sakrand

Dry weather was reported during the decade; however, Average relative humidity recorded as 54%. Mean day temperature was  $39.7^{\circ}$ C while night temperature recorded as  $26.7^{\circ}$ C with 103.7hours bright sunshine duration. Wind speed recorded as 5.0 km/hr with mean direction south easterly.

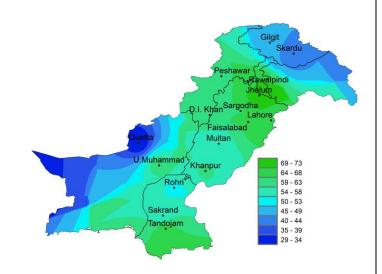


Figure.3: Relative Humidity in Percentage (%)

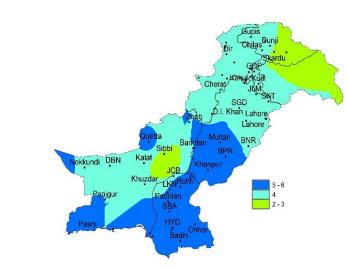


Figure.4: Reference Crop Evapotranspiration ETo (mm/day)



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 during the decade. Average relative humidity recorded as 52%. Mean day temperature was 40.1 °C while night temperature recorded as 29.2°C with 97.5 hours bright sunshine duration. Wind speed recorded as 5.0km/hr with Mean wind direction as *north easterly*.

#### 2.13 D.I. Khan

Dry weather was reported during the decade; however, weather remained partially cloudy for 03days. Average relative humidity recorded as 61%. Mean day temperature was 38.3°C while night temperature recorded as 26.8°C with 78.3hours bright sunshine duration. Wind speed recorded as 4.2km/hr with mean wind direction as *south easterly*.

#### 2.14 Peshawar

Dry weather was reported during the decade; however, weather remained partially cloudy during the decade. Average relative humidity recorded as 61%. Mean day temperature was 35.9°C while night temperature recorded as 24.1 °C with 66.2hours bright sunshine duration. Wind speed recorded as 3.9km/hr with mean wind direction as *north easterly*.

## 2.15 Skardu

Rainfall reported as 0.2 mm during the decade; however, weather remained partially cloudy for 02 days during the decade. Average relative humidity recorded as 39%. Mean day temperature was 28.4°C while night temperature recorded as 9.5°C with 55.2hours bright sunshine duration. Wind speed recorded as 2.2 km/hr with mean wind direction as *south westerly*.

## **2.16** Gilgit

Dry weather was reported during the decade; however, weather remained partially cloudy during the decade. Average relative humidity recorded as 47%. Mean day temperature was 34.4°C while night temperature recorded as 13°C with 76.6 shours bright sunshine duration. Wind speed recorded as 3.8 km/hr with mean wind direction as *south easterly*.

# Ten Days Weather Advisory for Farmers (01st to 11th October 2024)

## 3.1 <u>Temperature Forecast</u>

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. However, rain-wind/thundershower is likely from 4<sup>th</sup> to 8<sup>th</sup> October the Province during second half of the decade.

## **\*** Khyber Pakhtunkhwa:

Mainly hot and dry is likely during the first half of the decade. However, rain-wind/thundershower is likely in the Province during second half of the decade.

#### Sindh:

Mainly hot and dry weather is expected in most parts of the province during the decade. However, rainwind/thundershower is likely in southeastern parts of the Province during second half of the decade.

## **❖** Baluchistan:

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

## **❖** Gilgit-Baltistan:

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

## **\*** Kashmir:

Mainly hot and dry weather is expected in most parts of Kashmir during the first half of the decade. 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.