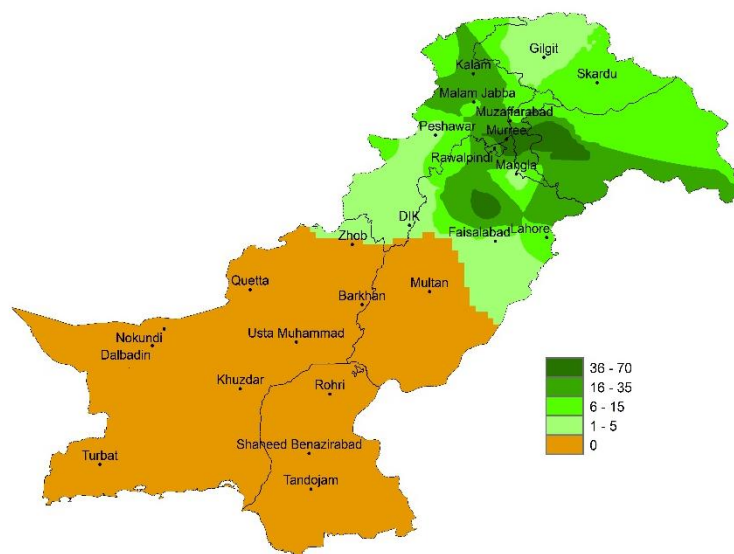


# Weekly Weather and Crop Bulletin for Pakistan

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**Rainfall Distribution (mm) during the Previous Week (18<sup>th</sup> – 24<sup>th</sup> October, 2021)**

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## Highlights of Past Weather (18<sup>th</sup> – 24<sup>th</sup> October, 2021)

Below normal night time temperatures were observed in Baluchistan, Sindh, South Punjab, and above normal in upper Punjab, Khyber Pakhtunkhwa, Kashmir & Gilgit-Baltistan during the last week.

Rainfall reported as follows during the last week:

1. Light to moderate rainfall reported from upper Punjab, Khyber Pakhtunkhwa, Kashmir and Gilgit-Baltistan.
2. Dry weather reported from South Punjab, Sindh and Baluchistan.

**Patron-in-Chief: Muhammad Riaz (Director General)**

**Editor-in-Chief: Dr Muhammad Afzaal (Director)**

**Editor: Ruqiya Mehmood (Assistant Meteorologist)**

**Past Weather of Provinces (18<sup>th</sup> – 24<sup>th</sup> October, 2021)****Punjab**

Light to moderate rainfall reported from upper Punjab during the week. Weekly maximum and minimum temperatures recorded as 30.9°C & 17.4°C respectively. For the recent week on average 134.2 growing degree days were accumulated. Average relative humidity recorded as 56% and wind speed in the morning/evening recorded as 2.0/3.8 Knots. During the previous week the highest precipitation was observed as 61.0 mm at Murree while the lowest minimum temperature was recorded as 7.0°C at Murree.

**Baluchistan**

Dry weather reported from Baluchistan during the week. Weekly maximum and minimum temperatures recorded as 30.4°C & 13.9°C respectively. For the recent week on average 120.3 growing degree days were accumulated. Average relative humidity recorded as 41% and wind speed in the morning/evening recorded as 0.9/5.5 Knots. During the previous week the lowest minimum temperature was recorded as 0.0°C at Kalat.

**Khyber Pakhtunkhwa**

Light to moderate rainfall reported from Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 25.7°C & 11.3°C respectively. For the recent week on average 94.8 growing degree days were accumulated. Average relative humidity recorded as 64% and wind speed in the morning/evening recorded as 1.4/1.7 Knots. During the previous week the highest precipitation was observed as 33.0 mm at Kakul while the lowest minimum temperature was recorded as -2.0°C at Kalam.

**Sindh**

Dry weather reported from Sindh during the week. Weekly maximum and minimum temperatures recorded as 34.7°C & 19.6°C respectively. For the recent week on average 155.0 growing degree days were accumulated. Average relative humidity

recorded as 56% and wind speed in the morning/evening recorded as 1.5/3.1 Knots. During the previous week the lowest minimum temperature was recorded as 16.5°C at Dadu.

**Gilgit-Baltistan and Azad Jammu & Kashmir**

Light to moderate rainfall reported from Azad Jammu & Kashmir during the week. Weekly maximum and minimum temperatures recorded as 21.7°C & 8.6°C respectively. For the recent week on average 70.9 growing degree days were accumulated. Average relative humidity recorded as 64% and wind speed in the morning/evening recorded as 0.4/3.1 Knots. During the previous week the highest precipitation was observed as 70.9 mm at Rawalakot while the lowest minimum temperature was recorded as 1.0°C at Astore.

**Past Weather for Major Agricultural Plains**  
**(18<sup>th</sup> – 24<sup>th</sup> October, 2021)**

**Rawalpindi (Potohar region)**

Rainfall reported as 24.0 mm from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 1.9/2.6 Oktas while, average relative humidity observed as 74%. Mean night time temperature recorded as 13.9°C & for the recent week 114.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.2/0.6 Knots.

**Faisalabad (Central Punjab)**

Dry weather reported from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 1.1/1.9 Oktas while, average relative humidity observed as 61%. Mean night time temperature recorded as 17.8°C & for the recent week 138.7 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.8/1.8 Knots.

**Tandojam (Lower Sindh)**

Dry weather reported from Tandojam during the week; however, clear sky observed in the morning/evening while, average relative humidity observed as 59%. Mean night time temperature recorded as 18.6°C & for the recent week 155.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.6/2.3 Knots.

**Usta Muhammad (Eastern Baluchistan)**

Dry weather reported from Usta Muhammad during the week; however, clear sky observed in the morning/evening while, average relative humidity observed as 56%. Mean night time temperature recorded as 18.4°C & for the recent week 147.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.1/0.2 Knots.

**Quetta (Northern Baluchistan)**

Dry weather reported from Quetta during the week; however, cloudiness in the morning/evening recorded as 0.6/1.0 Oktas while, average relative humidity observed as 29%. Mean night time temperature recorded as 6.6°C & for the recent week 72.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.8/2.4 Knots.

**Past Weather for Sub-Regional Agricultural Plains (18<sup>th</sup> – 24<sup>th</sup> October, 2021)**

**Multan**

Dry weather reported from Multan during the week; cloudiness in the morning/evening recorded as 1.1/0.0 Oktas while, average relative humidity observed as 50%. Mean night time temperature recorded as 17.2°C & for the recent week 138.6 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.6/7.7 Knots.

**Lahore**

Rainfall reported as 12.3 mm from Lahore during the week; cloudiness in the morning/evening recorded as 2.0/1.0 Oktas while, average relative humidity observed as 59%. Mean night time temperature recorded as 20.6°C & for the recent week 144.1 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.8/1.6 Knots.

**Zhob**

Dry weather reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 0.0/0.3 Oktas while, average relative humidity observed as 21%. Mean night time temperature recorded as 12.9°C & for the recent week 106.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.7/5.4 Knots.

**Murree**

Rainfall reported as 61.0 mm from Murree during the week; however, cloudiness in the morning/evening recorded as 2.8/2.4 Oktas while, average relative humidity observed as 59%. Mean night time temperature recorded 10.2°C & for the recent week 74.6 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.7/2.0 Knots.

**D.I. Khan**

Dry weather reported from D.I. Khan during the week; however, cloudiness in the morning/evening recorded as 1.2/0.0 Oktas while, average relative humidity observed as 61%. Mean night time temperature recorded as 17.8°C & for the recent week 145.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.3/1.3 Knots.

**Peshawar**

Rainfall reported as 1.0 mm from Peshawar during the week; however, cloudiness in the morning/evening recorded as 1.6/2.3 Oktas while, average relative humidity observed as 63%. Mean night time temperature recorded as 15.1°C & for the recent week 125.2 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.6/2.0 Knots.

**Kalam**

Rainfall reported as 30.2 mm from Kalam during the week; however, cloudiness in the morning/evening recorded as 2.3/5.4 Oktas while, average relative humidity observed as 62%. Mean night time temperature recorded as 1.2°C & for the recent week 2.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/2.1 Knots.

**Gilgit**

Rainfall reported as 1.8 mm from Gilgit during the week. However, cloudiness in the morning/evening recorded as 44/5.0 Oktas while, average relative humidity observed as 61%. Mean night time temperature recorded as 7.9°C & for the recent week 70.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.7/3.6 Knots.

**Skardu**

Rainfall reported as 6.6 mm from Skardu during the week; however, cloudiness in the morning/evening recorded as 4.0/3.7 Oktas while, average relative humidity observed as 62%. Mean night time temperature recorded as 3.1°C & for the recent week 31.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/2.1 Knots.

**Crop Condition for Major Agricultural Plains**  
**(Based on data from Regional Agromet Centers)****Potohar Region (Rawalpindi)**

There is presently no crop grown in the fields of RAMC Rawalpindi.

**Central Punjab (Faisalabad)**

Presently Cotton crop is grown in the fields of RAMC Faisalabad.

**Cotton: Very Good**, first picking done on 15-10-2021.

**Lower Sindh (Tandojam)**

Land is being prepared for next crop at RAMC Tandojam.

**Northern Baluchistan (Quetta)**

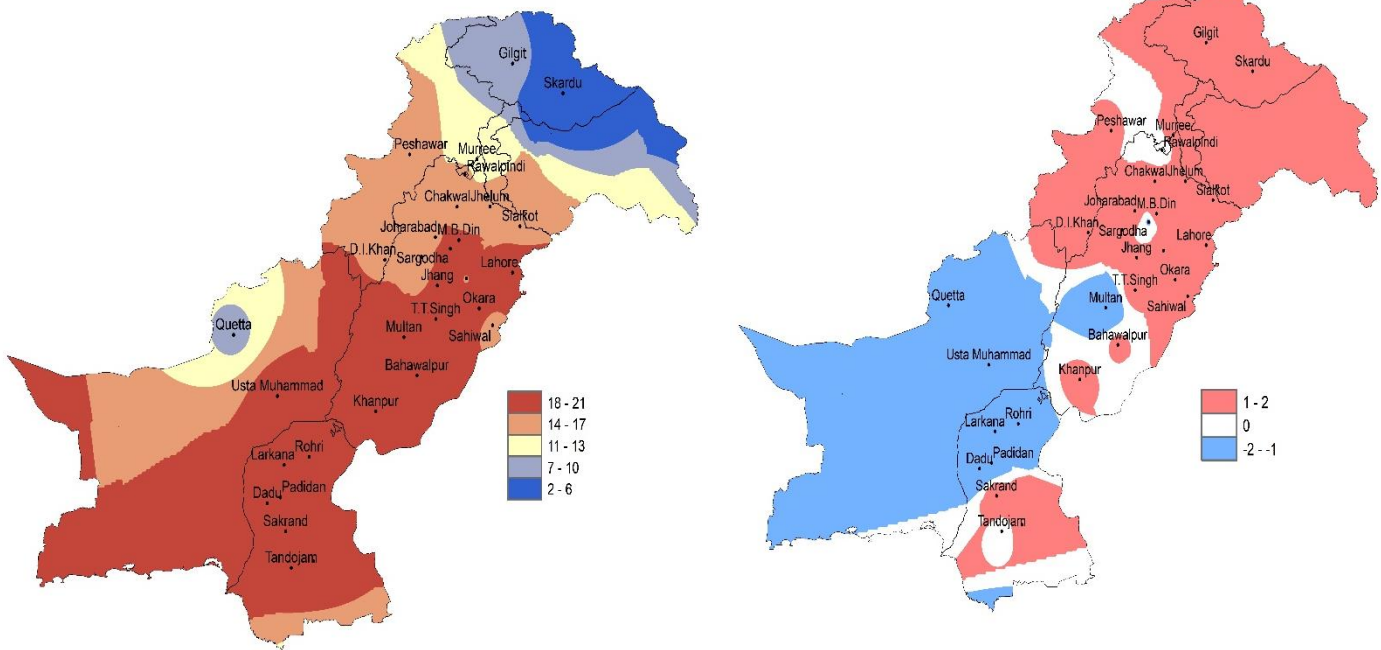
There is presently no crop grown in the fields of RAMC Quetta.

**Eastern Baluchistan (Usta Muhammad)**

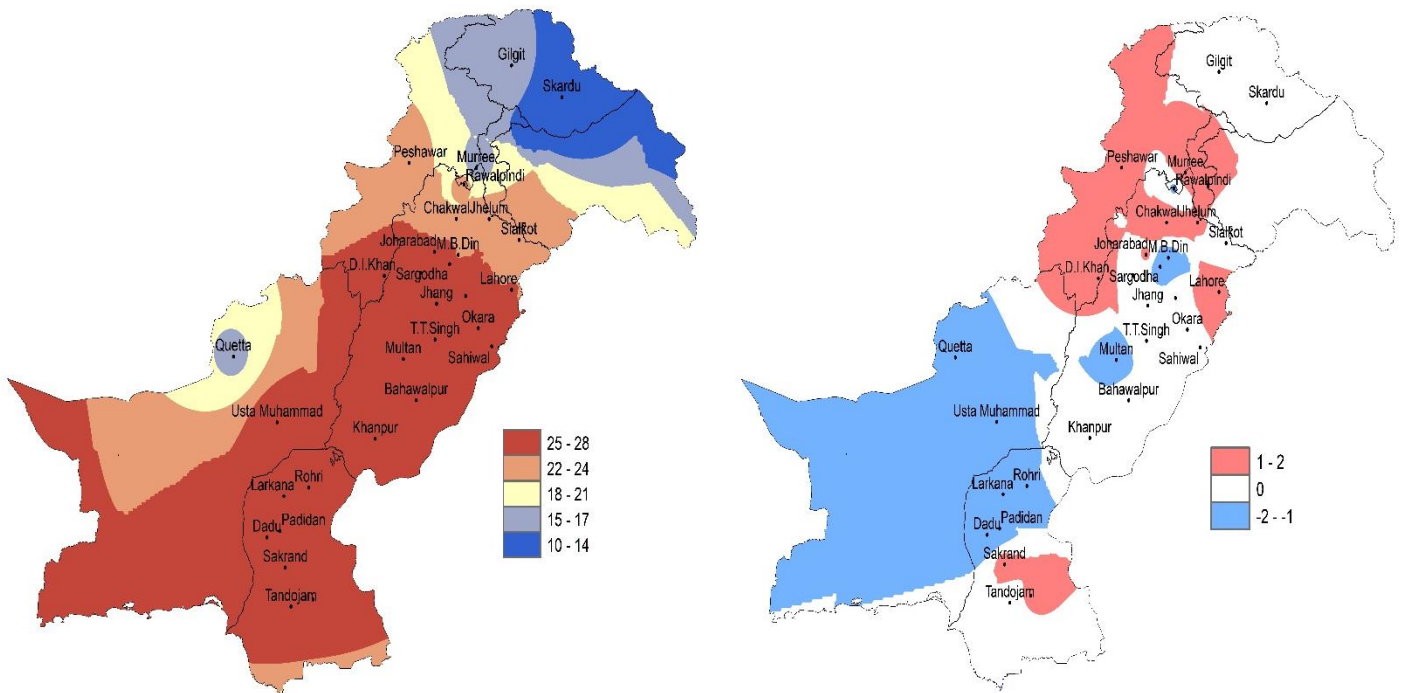
Presently Rice Crop is sown in the fields of RAMC Usta Muhammad.

**Rice: Good**, Milk Maturity Stage.

**Normal & Departure of Minimum temperature (°C) for the previous week (18<sup>th</sup> – 24<sup>th</sup> October, 2021)**

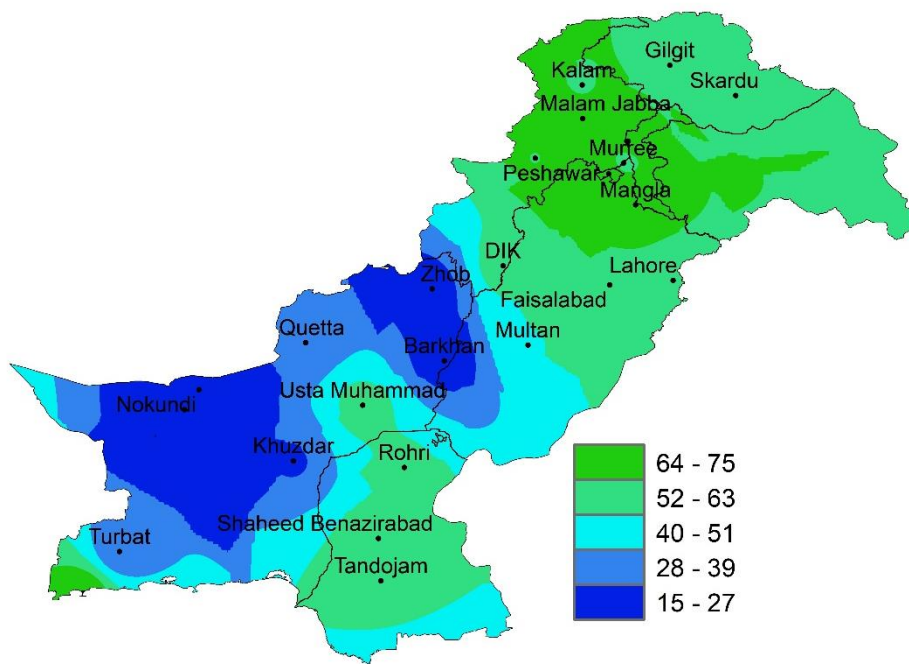


**Normal & Departure of Mean temperature (°C) for the previous week (18<sup>th</sup> – 24<sup>th</sup> October, 2021)**

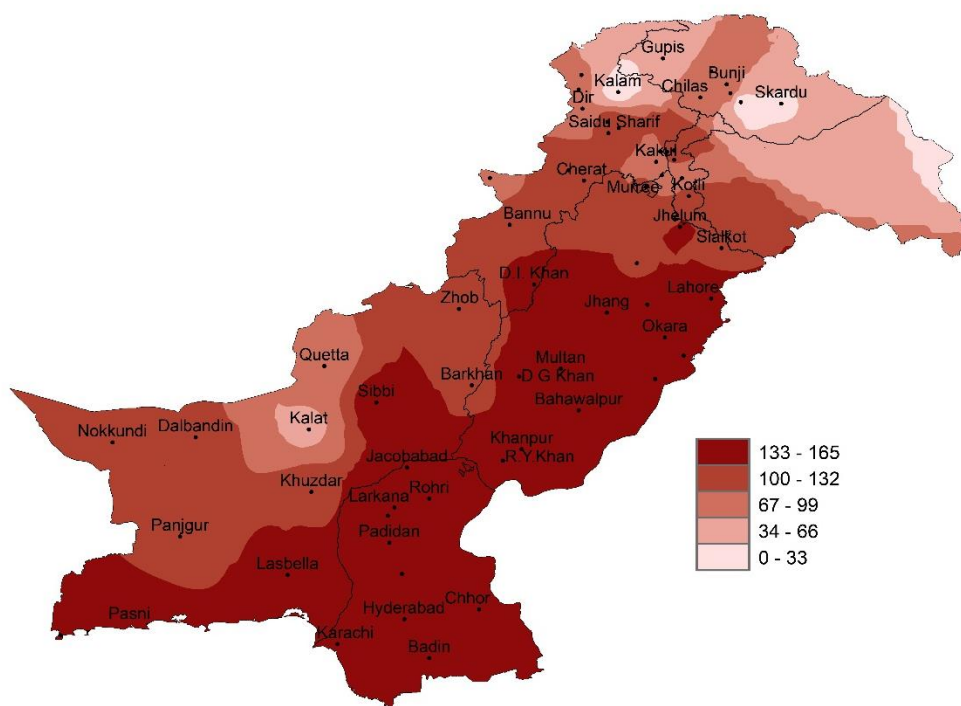




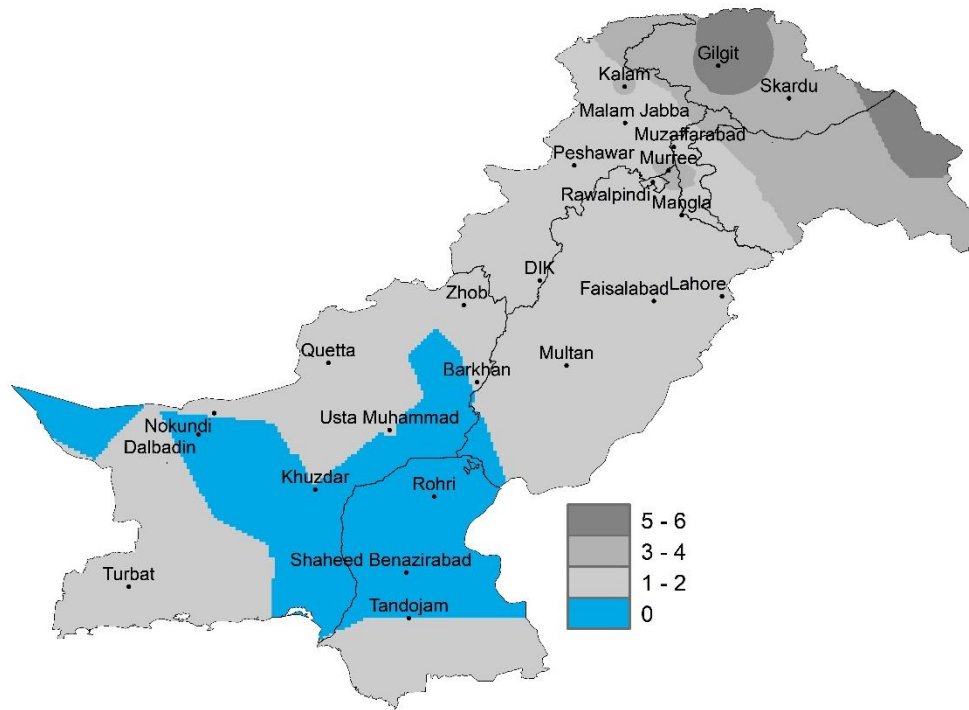
**Mean Relative Humidity (%) during the previous week (18<sup>th</sup> – 24<sup>th</sup> October, 2021)**



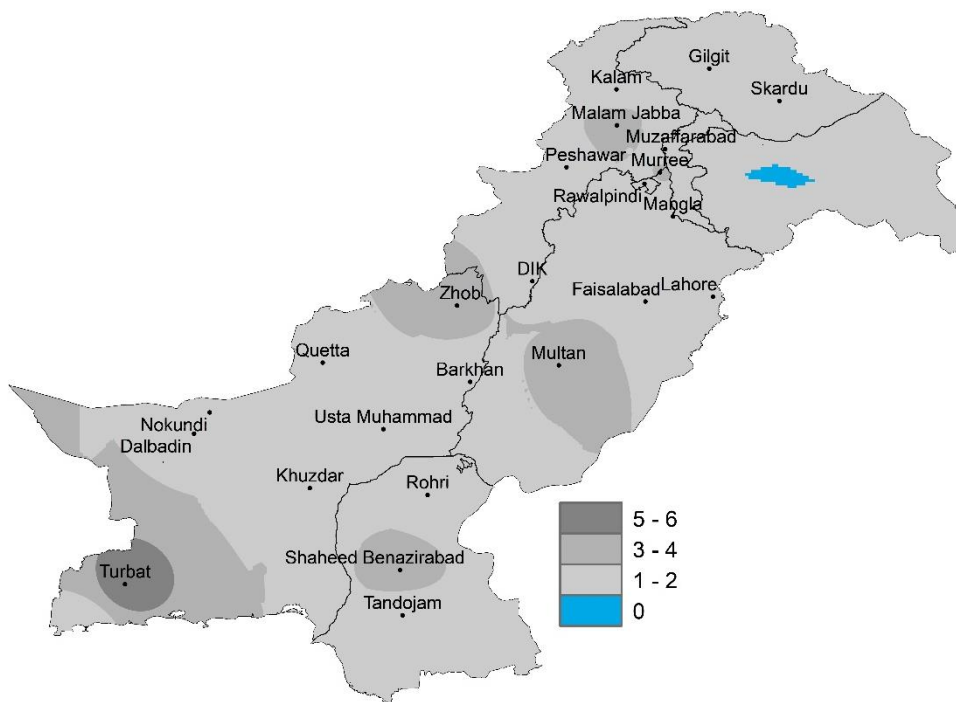
**Total Growing Degree Days accumulated during the previous week (18<sup>th</sup> – 24<sup>th</sup> October, 2021)**



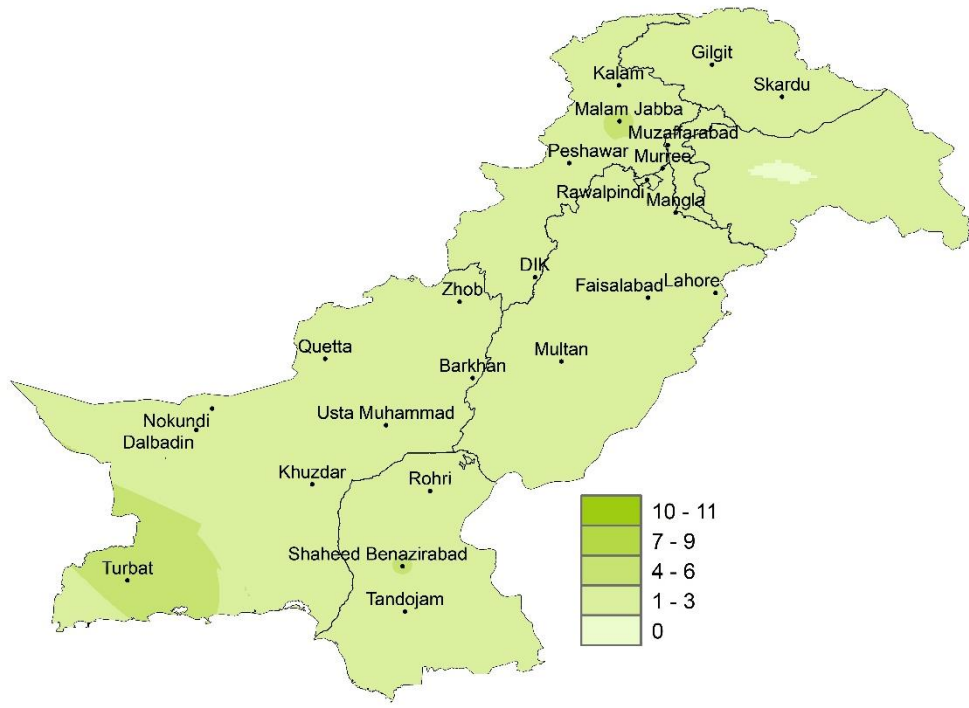
**Mean Cloudiness (Oktas) at 0800PST during the previous week (18<sup>th</sup> – 24<sup>th</sup> October, 2021)**



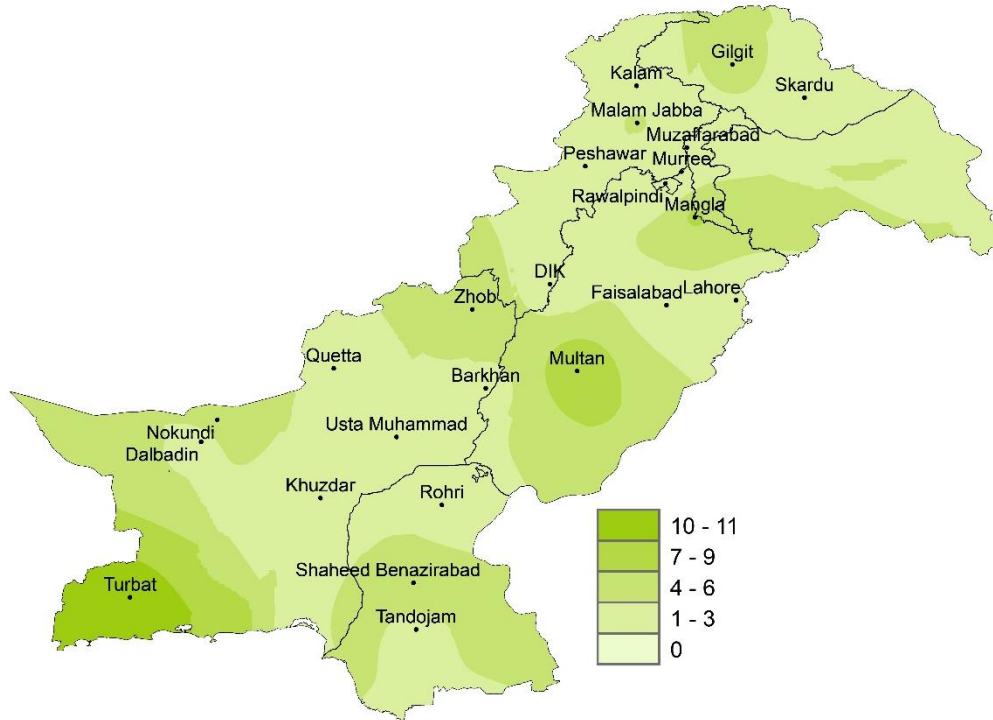
**Mean Cloudiness (Oktas) at 1700PST during the previous week (18<sup>th</sup> – 24<sup>th</sup> October, 2021)**



**Mean Wind Speed (Knots) at 0800PST during the previous week (18<sup>th</sup> – 24<sup>th</sup> October, 2021)**



**Mean Wind Speed (Knots) at 1700PST during the previous week (18<sup>th</sup> – 24<sup>th</sup> October, 2021)**





**Weekly Weather Advisory for Farmers****(25<sup>th</sup> – 31<sup>st</sup> October, 2021)**

Continental air is prevailing over most parts of the country.

**MONDAY****25-10-2021**

Mainly dry weather is expected in most plain areas of the country, while cold in hilly areas. However, rain wind-thunderstorm is expected at isolated places in Gilgit-Baltistan and Kashmir.

**TUESDAY****26-10-2021**

Mainly dry weather is expected in most plain areas of the country while partly cloudy weather with chances of rain wind-thunderstorm may occur at upper parts of the country.

**WEDNESDAY****27-10-2021**

Mainly dry weather is expected in most parts of the country. While, cold in hilly areas.

**THURSDAY****28-10-2021**

Mainly dry weather is expected in most parts of the country. While, cold in hilly areas.

**FRIDAY****29-10-2021.**

Mainly dry weather is expected in most parts of the country. While, cold in hilly areas.

**SATURDAY****30-10-2021**

Mainly dry weather is expected in most parts of the country. While, cold in hilly areas.

**SUNDAY****31-10-2021**

Mainly dry weather is expected in most parts of the country. While, cold in hilly areas.

**ADVISORY FOR FARMERS**

During the last week, light to moderate rainfall reported from upper Punjab, Khyber Pakhtunkhwa, Kashmir and Gilgit-Baltistan. Keeping in view the expected weather conditions farmers are advised the following advisories.

- ❖ Farmers are advised to irrigate the crop according to its need.
- ❖ Farmers are advised to schedule the picking of cotton on time.

**National Weather Data of Selected Cities from (18<sup>th</sup> – 24<sup>th</sup> October, 2021)**

Stations	Maximum /Day Time Temperature (°C)		Growing Degree Days	Relative Humidity (%)	Rainfall (mm)	Cloudiness (Oktas) 0800 PST	Cloudiness (Oktas) 1700 PST	Wind Speed (Knots) 0800 PST	Wind Speed (Knots) 1700 PST
	Mean	Maximum							
Barkhan	14.9	11.0	124.3	20	0.0	0.0	0.3	0.9	2.0
Dalbandin	11.2	9.0	112.3	24	0.0	0.0	0.0	0.9	1.4
D.I.Khan	18.0	17.0	145.5	57	0.0	1.2	0.0	1.3	1.3
Faisalabad	17.8	15.5	138.7	61	0.0	1.1	1.9	1.8	1.8
Gawadar	19.1	17.5	146.5	75	0.0	1.1	0.0	0.0	11.1
Gilgit	7.9	4.5	70.5	61	1.8	4.4	5.0	1.7	3.6
Kalam	1.2	-2.0	2.3	62	30.2	2.3	5.4	0.0	2.1
Khuzdar	15.6	14.5	123.0	25	0.0	0.0	0.0	0.0	0.0
Lahore	20.6	16.8	144.1	59	12.3	2.0	1.0	0.8	1.6
Malam Jabba	6.3	4.5	0.0	67	14.0	1.6	3.7	3.7	3.1
Mangla	17.4	16.0	129.6	68	2.9	1.7	2.1	0.0	6.3
Multan	17.2	15.2	138.6	50	0.0	1.1	0.0	2.6	7.7
Murree	10.2	7.0	74.6	59	61.0	2.8	2.4	2.7	2.0
Muzaffarabad	12.4	11.5	106.9	66	16.0	1.5	2.4	0.0	0.6
Nawabshah	17.8	17.0	159.3	55	0.0	0.0	0.0	3.1	5.4
Nokkundi	15.3	12.0	126.8	15	0.0	0.0	0.0	2.0	6.0
Peshawar	15.1	11.6	125.2	63	1.0	1.6	2.3	0.6	2.0
Quetta	6.6	3.0	72.0	29	0.0	0.6	1.0	1.8	2.4
Rawalpindi	13.9	13.5	114.3	74	24.0	1.9	2.6	0.2	0.6
Rohri	19.3	18.5	155.3	53	0.0	0.0	0.0	0.9	1.4
Skardu	3.1	1.3	31.8	62	6.6	4.0	3.7	0.0	2.1
Tandojam	18.6	17.0	155.0	59	0.0	0.0	0.0	0.6	2.3
Turbat	19.1	18.0	158.0	28	0.0	1.7	0.0	5.7	9.1
Usta Muhammad	18.4	17.5	147.8	56	0.0	0.0	0.0	1.1	0.2
Zhob	12.9	11.0	106.3	21	0.0	0.0	0.3	2.7	5.4

\*\*\* Shows that data was not available.

## Findings of AgMIP Pakistan, University of Agriculture, Faisalabad

1. There would be significant increase in temperature i.e., 2.8°C in day and 2.2°C in the night during mid-century (2040-2069).
2. There would be significant variability in rainfall patterns (about 25% increase in summer & 12% decrease in winter during 2040-2069).
3. Climate Change will affect the crop yields negatively (about 17% for rice and 14 % for wheat).
4. If there will be no adaptation to Climate Change, majority of farmers would be the economic losers.
5. With Adaptation to Climate Change (through technology and management), there would be significant decrease in poverty and improvement in the livelihood of farming community.

*(Agricultural Model Inter-comparison and Improvement Project (AgMIP)*

*Pakistan 2012-2014)*

- 1- سال 2040-69 کے دوران درجہ حرارت میں قابل ذکر اضافہ ہو سکتا ہے۔ جو کہ دن کے وقت 2.8°C اور رات کو 2.2°C تک ہوگا۔
- 2- گرمیوں کی بارش میں 25 فیصد اضافہ اور سردیوں کی بارش میں 12 فیصد تک کمی کا امکان ہے۔
- 3- مندرجہ بالا موسمی تغیرات کی وجہ سے دھان کی پیداوار میں 17 فیصد اور گندم کی پیداوار میں 14 فیصد تک کمی ہو سکتی ہے۔
- 4- اگر موسمی تغیرات کا مناسب بندوبست نہ کیا گیا۔ تو کسانوں کی اکثریت کو معاشی نقصان کا سامنا کرنا پڑے گا۔
- 5- موسمی تغیرات کے سدباب (بذریعہ نئی ٹیکنالوجی کا استعمال اور بہتر نظم و نسق) سے غربت میں کمی اور کسانوں کی زندگی میں خوشحالی لائی جاسکتی ہے۔

(ایگمپ پاکستان 2014-2012)