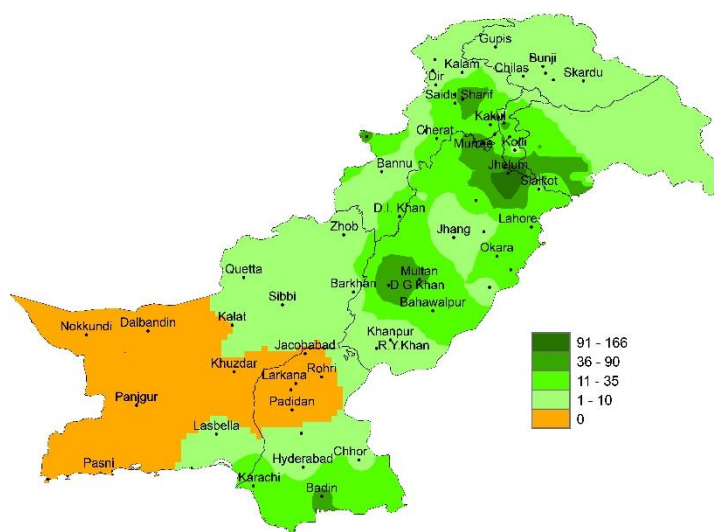


# Weekly Weather and Crop Bulletin for Pakistan

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**Rainfall Distribution (mm) during the Previous  
Week (20<sup>th</sup> – 26<sup>th</sup> September, 2021)**

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## Highlights of Past Weather (20<sup>th</sup> – 26<sup>th</sup> September, 2021)

Above normal day time temperatures were observed almost all over the country except central and south Punjab during the last week.

Rainfall reported as follows during the last week:

1. Light to moderate rainfall reported from Punjab, Khyber Pakhtunkhwa, lower Sindh, Kashmir and Gilgit-Baltistan.
2. Light rainfall reported from a single station in northeast Baluchistan.

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

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

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

**Past Weather of Provinces (20<sup>th</sup> – 26<sup>th</sup> September, 2021)****Punjab**

Light to moderate rainfall reported from Punjab during the week. Weekly maximum and minimum temperatures recorded as 34.1°C & 24.0°C respectively. For the recent week on average 168.3 growing degree days were accumulated. Average relative humidity recorded as 74% and wind speed in the morning/evening recorded as 1.2/2.2 Knots. During the previous week the highest precipitation was observed as 189.4 mm at Jhelum while the highest maximum temperature was recorded as 41.0°C at Rahim Yar Khan.

**Baluchistan**

Light rainfall reported from a single station in northeast Baluchistan during the week. Weekly maximum and minimum temperatures recorded as 35.3°C & 21.8°C respectively. For the recent week on average 164.8 growing degree days were accumulated. Average relative humidity recorded as 49% and wind speed in the morning/evening recorded as 1.5/7.1 Knots. During the previous week the highest precipitation was observed as 1.0 mm at Barkhan while the highest maximum temperature was recorded as 43.0°C at Sibbi.

**Khyber Pakhtunkhwa**

Light to moderate rainfall reported from Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 31.8°C & 19.1°C respectively. For the recent week on average 143.4 growing degree days were accumulated. Average relative humidity recorded as 71% and wind speed in the morning/evening recorded as 0.9/2.3 Knots. During the previous week the highest precipitation was observed as 65.0 mm at Malamjabba while the highest maximum temperature was recorded as 40.0°C at D.I.Khan.

**Sindh**

Light to moderate rainfall reported from lower Sindh during the week. Weekly maximum and minimum temperatures recorded as 37.1°C & 26.6°C respectively. For the recent week, on average 188.1 growing degree days were accumulated. Average relative humidity recorded as 63% and wind speed in the morning/evening recorded as 2.3/3.7 Knots. During the previous week the highest precipitation was observed as 39.0 mm at Badin while the highest maximum temperature was recorded as 43.0°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 30.8°C & 16.2°C respectively. For the recent week on average 129.5 growing degree days were accumulated. Average relative humidity recorded as 60% and wind speed in the morning/evening recorded as 0.4/2.9 Knots. During the previous week the highest precipitation was observed as 51.0 mm at Garhi Dupatta while the highest maximum temperature was recorded as 38.0°C at Chillas.

**Past Weather for Major Agricultural Plains****(20<sup>th</sup> – 26<sup>th</sup> September, 2021)****Rawalpindi (Potohar region)**

Rainfall reported as 31.8 mm from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 1.6/1.9 Oktas while, average relative humidity observed as 73%. Mean day time temperature recorded as 34.2°C & for the recent week 159.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.2/1.4 Knots.

**Faisalabad (Central Punjab)**

Rainfall reported as 29.0 mm from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 0.3/3.9 Oktas while, average relative humidity observed as 65%. Mean day time temperature recorded as 34.7°C & for the recent week 171.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.9/0.8 Knots.

**Tandojam (Lower Sindh)**

Rainfall reported as 1.2 mm from Tandojam during the week; however, cloudiness in the morning/evening recorded as 1.4/2.8 Oktas while, average relative humidity observed as 68%. Mean day time temperature recorded as 37.5°C & for the recent week 186.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.2/1.7 Knots.

**Usta Muhammad (Eastern Baluchistan)**

Dry weather reported from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded as 1.0/0.2 Oktas while, average relative humidity observed as 66%. Mean day time temperature recorded as 38.5°C & for the recent week 198.1 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.2/1.1 Knots.

**Quetta (Northern Baluchistan)**

Dry weather reported from Quetta during the week; however, cloudiness in the morning/evening recorded as 2.0/2.3 Oktas while, average relative humidity observed as 37%. Mean day time temperature recorded as 31.6°C & for the recent week 133.6 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.8/2.4 Knots.

**Past Weather for Sub-Regional Agricultural****Plains (20<sup>th</sup> – 26<sup>th</sup> September, 2021)****Multan**

Rainfall reported as 36.0 mm from Multan during the week; however, cloudiness in the morning/evening recorded as 2.9/1.7 Oktas while, average relative humidity observed as 69%. Mean day time temperature recorded as 34.6°C & for the recent week 176.4 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.0/3.4 Knots.

**Lahore**

Rainfall reported as 13.2 mm from Lahore during the week; cloudiness in the morning/evening recorded as 3.2/3.7 Oktas while, average relative humidity observed as 75%. Mean day time temperature recorded as 32.5°C & for the recent week 166.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.7/1.3 Knots.

**Zhob**

Dry weather reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 0.3/2.9 Oktas while, average relative humidity observed as 41%. Mean day time temperature recorded as 33.5°C & for the recent week 158.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 3.3/4.7 Knots.

**Murree**

Rainfall reported as 18.0 mm from Murree during the week; however, cloudiness in the morning/evening recorded as 2.7/4.4 Oktas while, average relative humidity observed as 78%. Mean day time temperature recorded as 23.4°C & for the recent week 99.9 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.9/1.7 Knots.

**D.I. Khan**

Rainfall reported as 16.0 mm from D.I. Khan during the week; however, cloudiness in the morning/evening recorded as 2.1/1.1 Oktas while, average relative humidity observed as 71%. Mean day time temperature recorded as 36.4°C & for the recent week 175.9 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.9/0.9 Knots.

**Peshawar**

Dry weather reported from Peshawar during the week; however, cloudiness in the morning/evening recorded as 3.9/3.1 Oktas while, average relative humidity observed as 68%. Mean day time temperature recorded as 36.3°C & for the recent week 177.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.6/0.9 Knots.

**Kalam**

Rainfall reported as 1.4 mm from Kalam during the week; however, cloudiness in the morning/evening recorded as 2.0/3.9 Oktas while, average relative humidity observed as 46%. Mean day time temperature recorded as 24.3°C & for the recent week 83.1 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/0.9 Knots.

**Gilgit**

Dry weather reported from Gilgit during the week. However, cloudiness in the morning/evening recorded as 3.6/4.1 Oktas while, average relative humidity observed as 51%. Mean day time temperature recorded as 32.4°C & for the recent week 123.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/4.9 Knots.

**Skardu**

Dry weather reported from Skardu during the week; however, cloudiness in the morning/evening recorded as 3.1/3.0 Oktas while, average relative humidity observed as 46%. Mean day time temperature recorded as 26.7°C & for the recent week 95.2 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/0.9 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**, Maturity Stage.

**Lower Sindh (Tandojam)**

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

**Cotton: Crop Variety (Sindh-1)**, Second Picking Done.

**Northern Baluchistan (Quetta)**

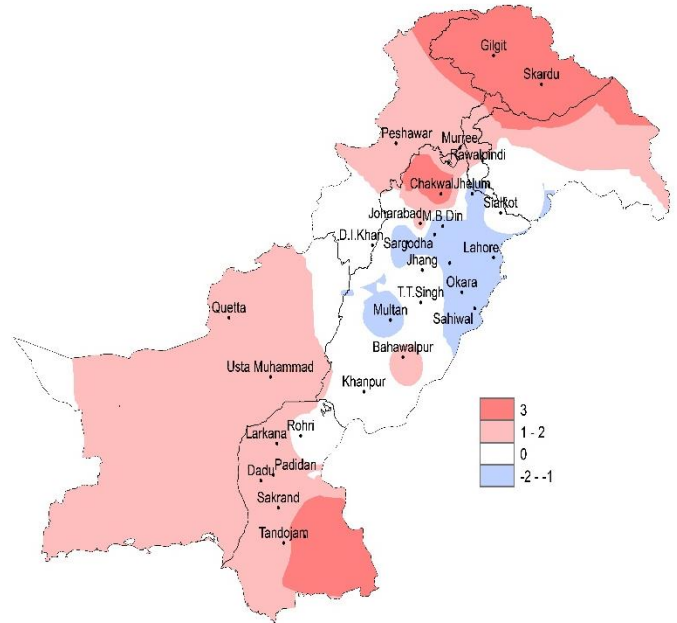
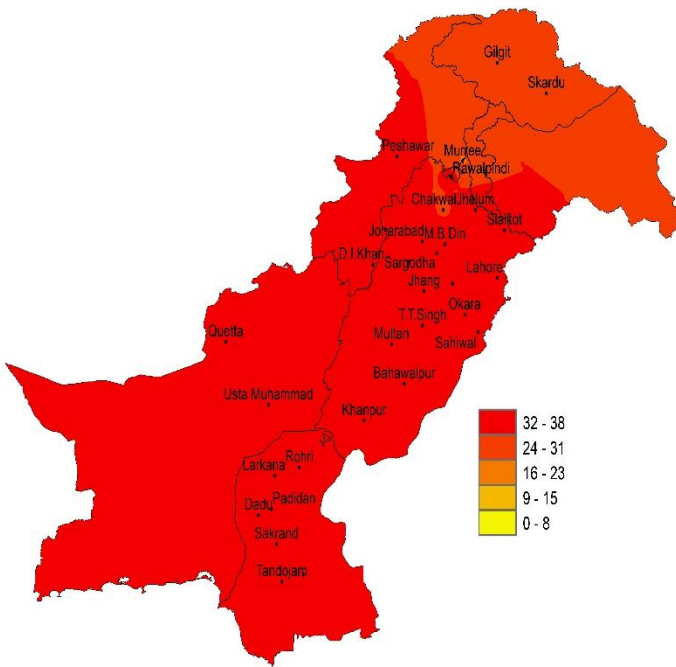
There is presently no crop grown in the fields of RAMC Quetta.

**Eastern Baluchistan (Usta Muhammad)**

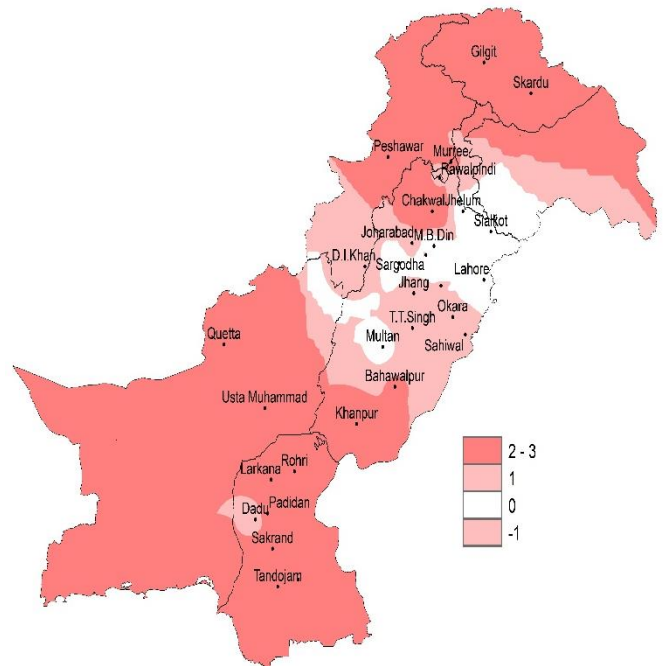
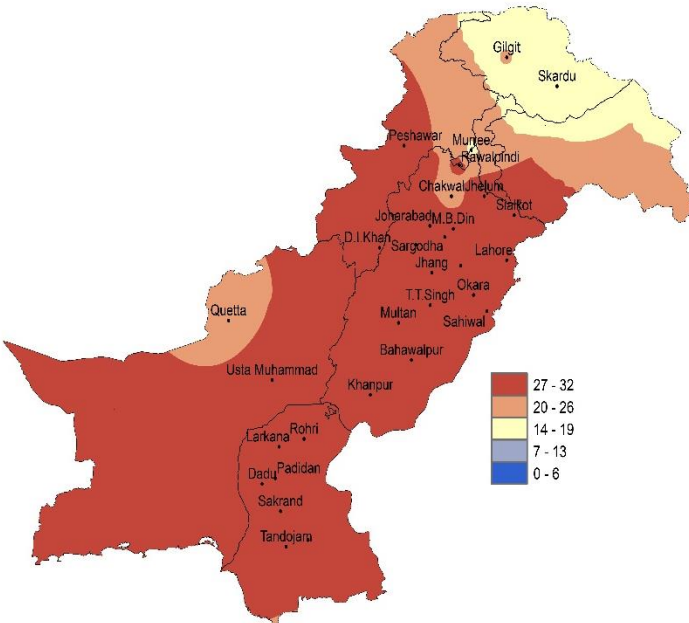
Presently Rice crop is sown in the fields of RAMC Usta Muhammad.

**Rice: Good**, Shooting Stage.

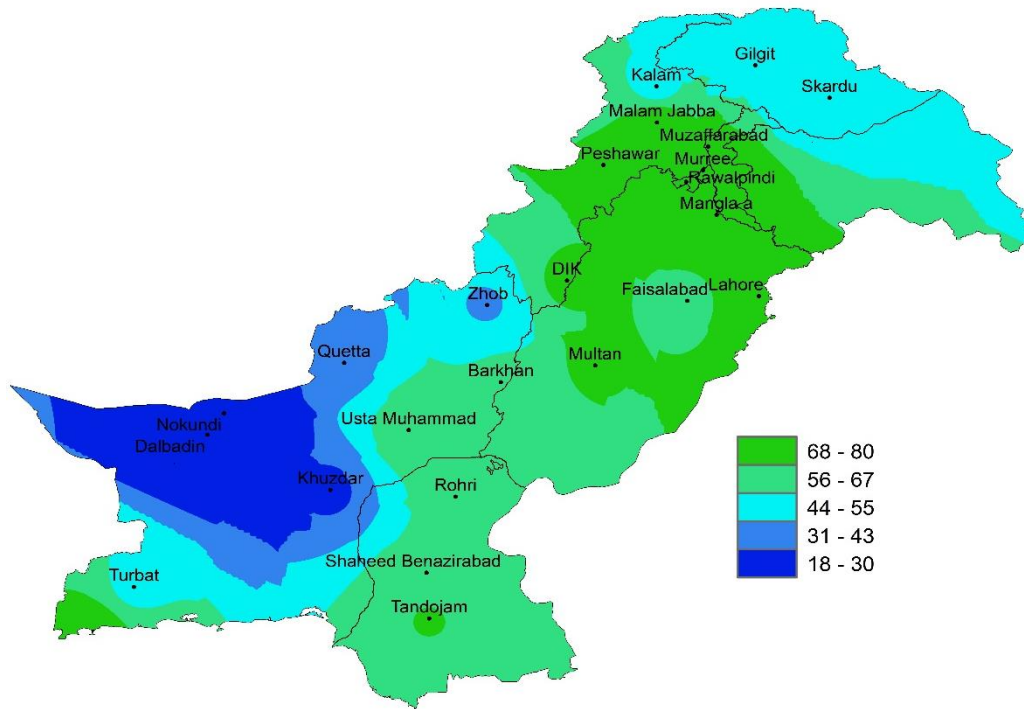
**Normal & Departure of Maximum temperature (°C) for the previous week (20<sup>th</sup> – 26<sup>th</sup> September, 2021)**



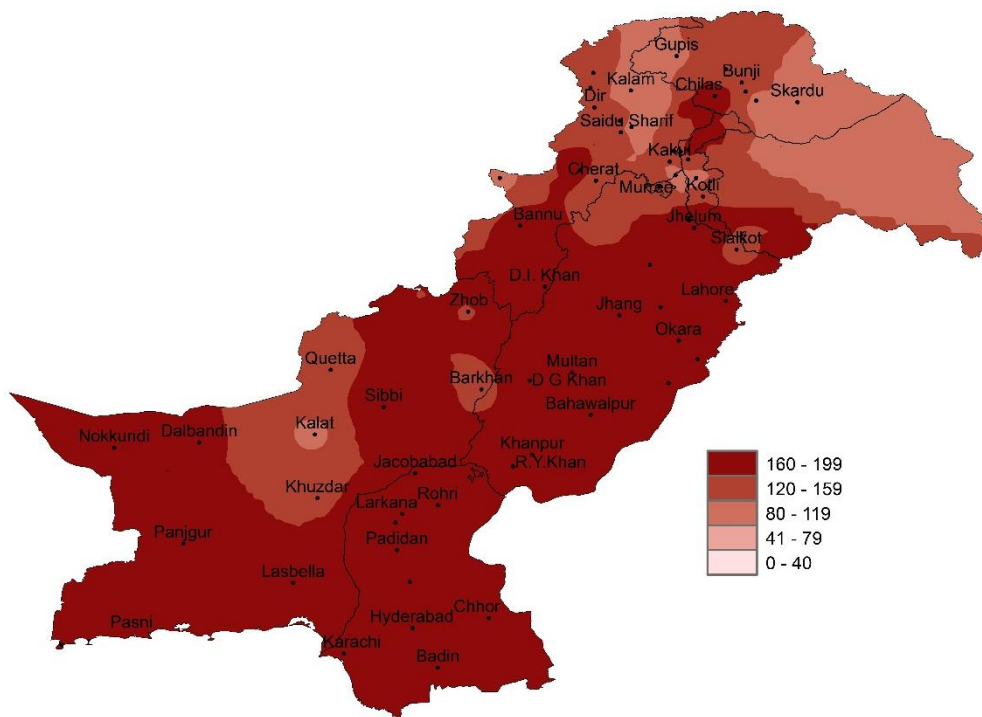
**Normal & Departure of Mean temperature (°C) for the previous week (20<sup>th</sup> – 26<sup>th</sup> September, 2021)**



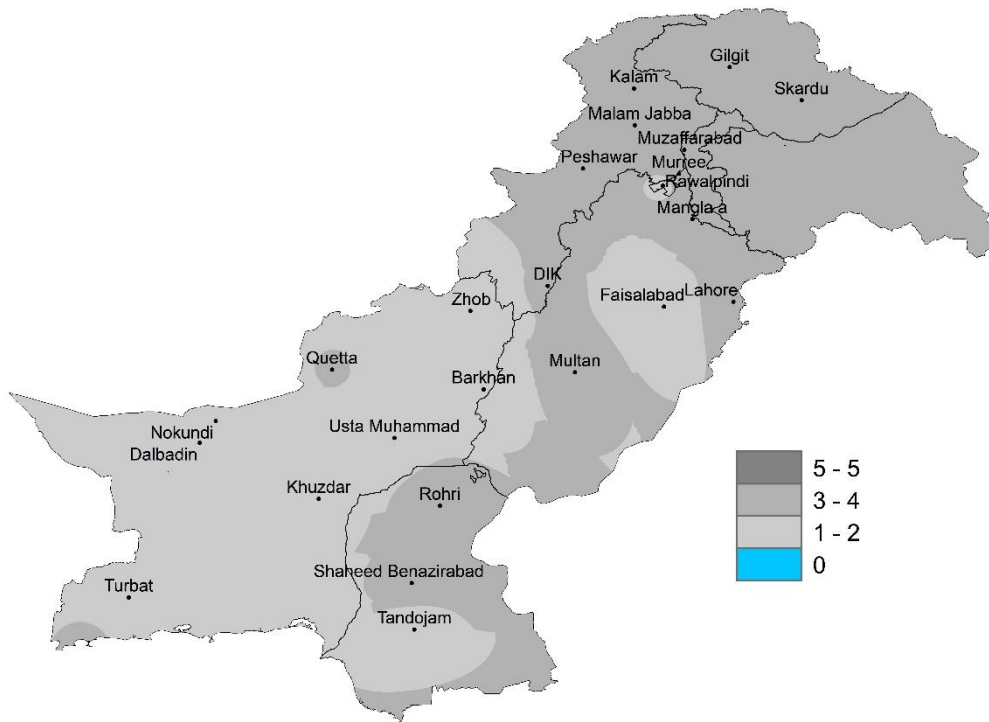
**Mean Relative Humidity (%) during the previous week (20<sup>th</sup> – 26<sup>th</sup> September, 2021)**



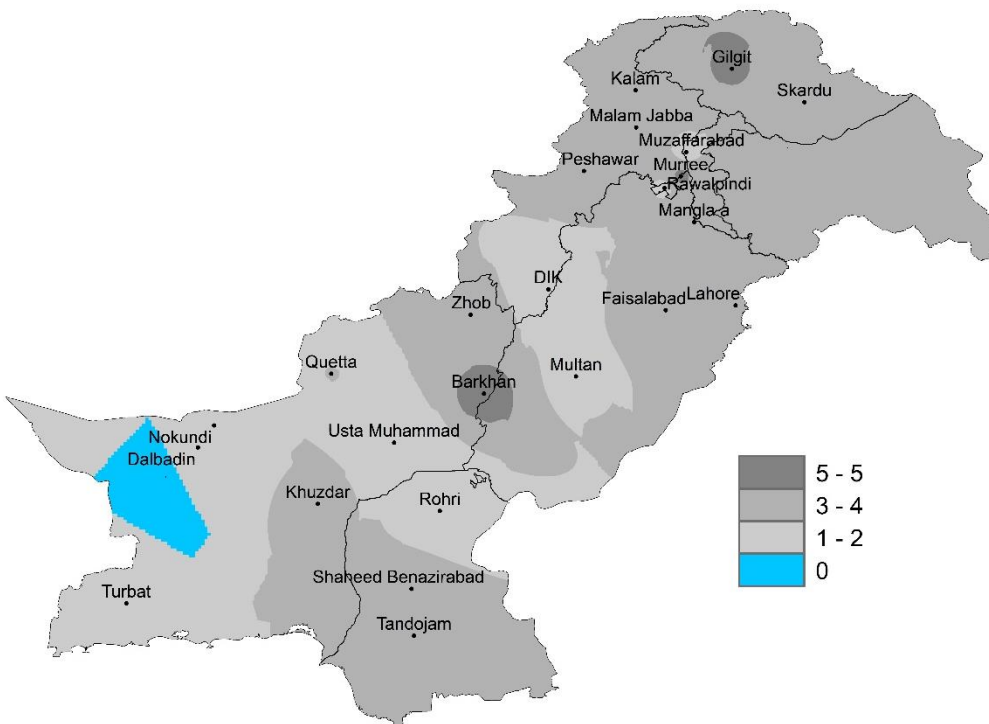
**Total Growing Degree Days accumulated during the previous week (20<sup>th</sup> – 26<sup>th</sup> September, 2021)**



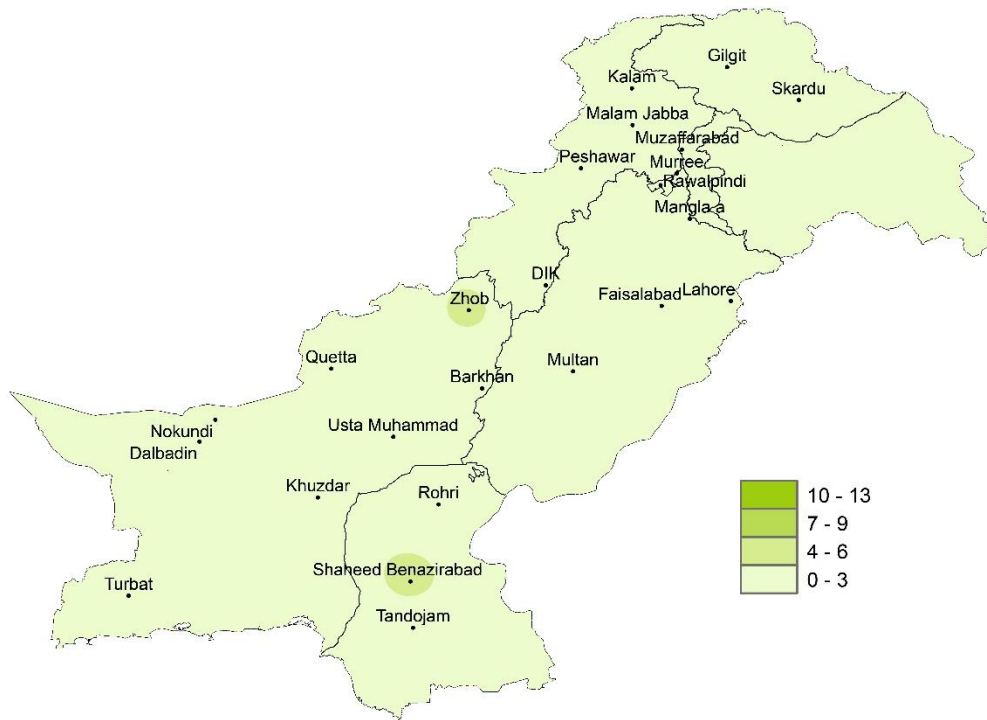
**Mean Cloudiness (Oktas) at 0800PST during the previous week (20<sup>th</sup> – 26<sup>th</sup> September, 2021)**



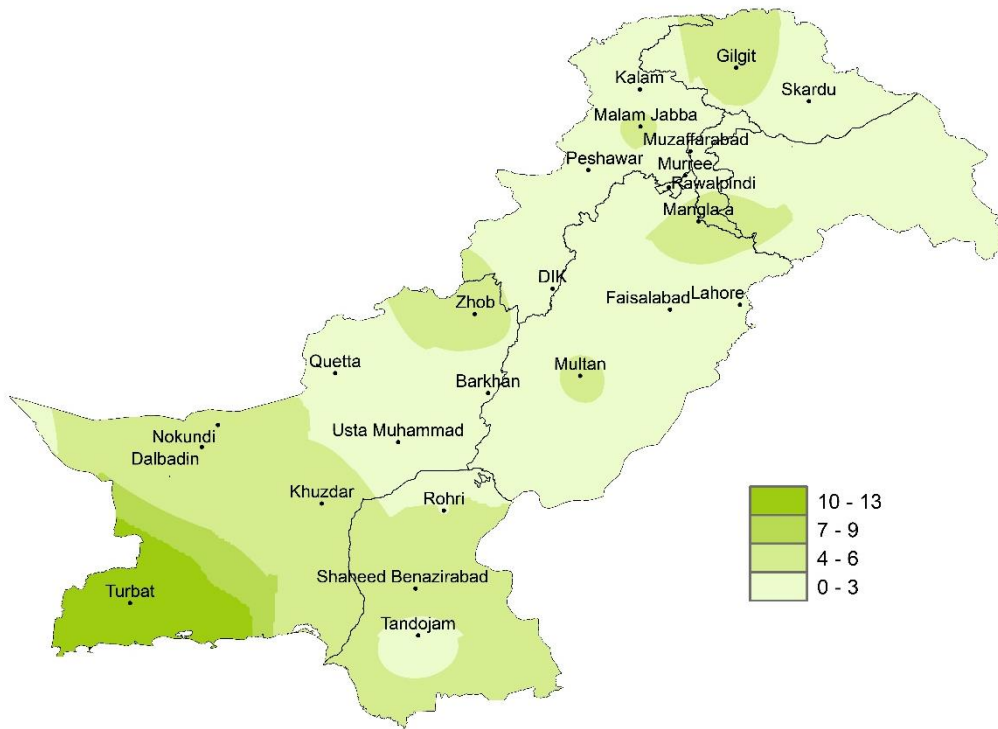
**Mean Cloudiness (Oktas) at 1700PST during the previous week (20<sup>th</sup> – 26<sup>th</sup> September, 2021)**



**Mean Wind Speed (Knots) at 0800PST during the previous week (20<sup>th</sup> – 26<sup>th</sup> September, 2021)**



**Mean Wind Speed (Knots) at 1700PST during the previous week (20<sup>th</sup> – 26<sup>th</sup> September, 2021)**





**Weekly Weather Advisory for Farmers****(27<sup>th</sup> September – 3<sup>rd</sup> October, 2021)**

Continental air is prevailing over most parts of the country. Strong monsoon currents are likely to penetrate in Sindh from today evening/night and likely to continue during next few days.

**MONDAY****27-09-2021**

Mainly dry weather is expected in upper/central parts, while hot in southern parts of the country. However, rain-wind/thundershower is expected at isolated places in Kashmir and its adjoining areas.

**TUESDAY****28-09-2021**

Mainly dry weather is expected in upper/central parts, while hot in Southern parts of the country. However, rain-wind/thundershower is expected at isolated places in southeastern Sindh, Kashmir and its adjoining areas.

**WEDNESDAY****29-09-2021**

Mainly dry weather is expected in upper/central parts. However, rain-wind/thundershower is expected in lower Sindh and southern Balochistan.

**THURSDAY****30-09-2021**

Mainly dry weather is expected in upper/central parts. However, rain-wind/thundershower is expected in lower Sindh and southern Balochistan. Isolated heavy falls are also expected during the period.

**FRIDAY****01-10-2021.**

Rain-wind/thundershower is expected in Pothohar region, upper Khyber Pakhtunkhwa, Gilgit Baltistan, Kashmir and southern Balochistan. Isolated heavy falls are also expected during the period.

**SATURDAY****02-10-2021**

Rain-wind/thundershower is expected in Khyber Pakhtunkhwa, Islamabad, upper Punjab, Kashmir & Gilgit Baltistan. Dry weather is likely to prevail elsewhere in the country.

**SUNDAY****03-10-2021**

Rain-wind/thundershower is expected in upper/central Punjab, Khyber Pakhtunkhwa, Kashmir & Gilgit Baltistan. Dry weather is likely to prevail elsewhere in the country.

**ADVISORY FOR FARMERS**

During the last week, light to moderate rainfall reported from Punjab, Khyber Pakhtunkhwa, lower Sindh, Kashmir and Gilgit-Baltistan. Light rainfall reported from a single station in northeast Baluchistan. Keeping in view the expected weather conditions farmers are advised the following advisories.

- ❖ Farmers are advised to irrigate the crops according to its need.

**National Weather Data of Selected Cities from (20<sup>th</sup> – 26<sup>th</sup> September, 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	32.8	34.5	151.8	58	1.0	0.9	4.6	0.0	1.1
Dalbandin	39.0	39.5	164.3	21	0.0	0.0	0.0	1.1	3.1
D.I.Khan	36.4	40.0	175.9	71	16.0	2.1	1.1	0.9	0.9
Faisalabad	34.7	37.0	171.8	65	29.0	0.3	3.9	0.9	0.8
Gawadar	34.1	35.5	174.0	79	0.0	2.1	1.6	1.1	11.7
Gilgit	32.4	35.0	123.3	51	0.0	3.6	4.1	0.0	4.9
Kalam	24.3	25.7	83.1	46	1.4	2.0	3.9	0.0	0.9
Khuzdar	33.8	36.0	154.8	27	0.0	1.0	3.4	0.0	4.9
Lahore	32.5	35.5	166.5	75	13.2	3.2	3.7	0.7	1.3
Malam Jabba	20.0	21.5	73.8	80	65.0	2.1	3.0	2.3	4.0
Mangla	33.7	36.0	165.0	74	35.7	2.9	3.4	1.1	5.7
Multan	34.6	37.3	176.4	69	36.0	2.9	1.7	2.0	3.4
Murree	23.4	24.6	99.9	78	18.0	2.7	4.4	0.9	1.7
Muzaffarabad	34.3	36.0	154.2	67	4.6	2.9	1.7	0.3	0.0
Nawabshah	39.4	40.5	198.2	61	0.0	2.4	3.9	3.4	6.3
Nokkundi	39.9	41.0	186.0	18	0.0	0.0	0.0	1.7	5.4
Peshawar	36.3	37.4	177.3	68	0.0	3.9	3.1	0.6	0.9
Quetta	31.6	33.5	133.6	37	0.0	2.0	2.3	1.8	2.4
Rawalpindi	34.2	35.0	159.5	73	31.8	1.6	1.9	0.2	1.4
Rohri	37.9	40.5	196.0	61	0.0	3.0	0.3	2.3	3.1
Skardu	26.7	31.4	95.2	46	0.0	3.1	3.0	0.0	0.9
Tandojam	37.5	38.5	186.3	68	1.2	1.4	2.8	1.2	1.7
Turbat	39.9	40.5	196.8	51	0.0	0.7	0.0	1.4	12.6
Usta Muhammad	38.5	39.5	198.1	66	0.0	1.0	0.2	0.2	1.1
Zhob	33.5	35.0	158.8	41	0.0	0.3	2.9	3.3	4.7

\*\*\* 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)