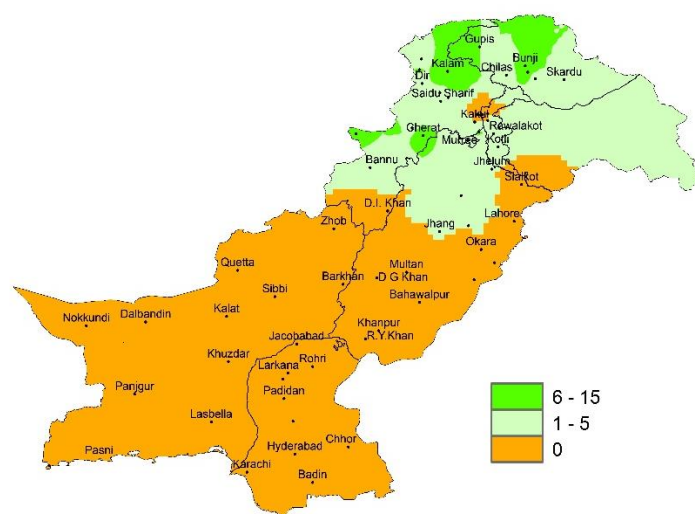


# Weekly Weather and Crop Bulletin for Pakistan

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**Rainfall Distribution (mm) during the Previous  
Week (21<sup>st</sup> - 27<sup>th</sup> September, 2020)**

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## Highlights of Past Weather (21<sup>st</sup> - 27<sup>th</sup> September, 2020)

Above normal day time temperatures were observed in Sindh, Punjab, Khyber Pakhtunkhwa, Kashmir and Gilgit-Baltistan, while mix trend was observed in Baluchistan during the last week.

Rainfall reported as follows during the last week:

1. Light to moderate rainfall observed in upper Khyber Pakhtunkhwa, Potohar region, Kashmir and Gilgit-Baltistan.
2. Dry weather prevailed over Baluchistan, lower Khyber Pakhtunkhwa, Sindh, south/central Punjab.

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

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

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

**Past Weather of Provinces (21<sup>st</sup> - 27<sup>th</sup> September, 2020)****Punjab**

Light rainfall reported from Potohar region during the week. Weekly maximum and minimum temperatures recorded as 35.4°C & 22.5°C respectively. For the recent week on average 180.4 growing degree days were accumulated. Average relative humidity recorded as 53% and wind speed in the morning/evening recorded as 1.6/3.0 Knots. During the previous week the highest precipitation was recorded as 6.0 mm at Murree while the highest maximum temperature was recorded as 42.2°C at Noorpur Thal.

**Baluchistan**

Dry weather reported from Baluchistan during the week. Weekly maximum and minimum temperatures recorded as 33.5°C & 17.9°C respectively. For the recent week on average 153.1 growing degree days were accumulated. Average relative humidity recorded as 38% and wind speed in the morning/evening recorded as 1.5/6.0 Knots. During the previous week the highest maximum temperature was recorded as 43.5°C at Turbat.

**Khyber Pakhtunkhwa**

Light to moderate rainfall reported from upper parts of Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 29.3°C & 15.6°C respectively. For the recent week on average 134.8 growing degree days were accumulated. Average relative humidity recorded as 62% and wind speed in the morning/evening recorded as 1.4/1.9 Knots. During the previous week the highest precipitation was recorded as 15.0 mm at Kalam while the highest maximum temperature was recorded as 40.5°C at D.I.Khan.

**Sindh**

Dry weather reported from most parts of Sindh during the week. Weekly maximum and minimum temperatures recorded as 36.0°C & 25.1°C respectively. For the recent week, on average 183.6

growing degree days were accumulated. Average relative humidity recorded as 59% and wind speed in the morning/evening recorded as 2.2/4.1 Knots. During the previous week the highest maximum temperature was recorded as 44.0°C at Shaheed Benazirabad.

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

Light rainfall reported from Gilgit-Baltistan & Kashmir during the week. Weekly maximum and minimum temperatures recorded as 24.9°C & 12.0°C respectively. For the recent week on average 113.3 growing degree days were accumulated. Average relative humidity recorded as 49% and wind speed in the morning/evening recorded as 0.8/0.6 Knots. During the previous week the highest precipitation was recorded as 7.4 mm at Bunji while the highest maximum temperature was recorded as 37.5°C at Chillas.

**Past Weather for Major Agricultural Plains****(21<sup>st</sup> - 27<sup>th</sup> September, 2020)****Rawalpindi (Potohar region)**

Rainfall reported as trace (not measurable) from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 0.6/1.4 Oktas while, average relative humidity observed as 57%. Mean day time temperature recorded as 35.4°C & for the recent week 161.2 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.6/1.1 Knots.

**Faisalabad (Central Punjab)**

Dry weather reported from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 0.4/0.7 Oktas while, average relative humidity observed as 56%. Mean day time temperature recorded as 38.6°C & for the recent week 185.7 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.8/0.6 Knots.

**Tandojam (Lower Sindh)**

Dry weather reported from Tandojam during the week; however, cloudiness in the morning/evening recorded as 1.4/0.8 Oktas while, average relative humidity observed as 66%. Mean day time temperature recorded as 38.1°C & for the recent week 185.2 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.5/3.2 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 67%. Mean day time temperature recorded as 38.6°C & for the recent week 193.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.2/0.0 Knots.

**Quetta (Northern Baluchistan)**

Dry weather reported from Quetta during the week; however, clear sky observed in the morning/evening while, average relative humidity observed as 17%. Mean day time temperature recorded as 28.5°C & for the recent week 102.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.1/2.6 Knots.

**Past Weather for Sub-Regional Agricultural****Plains (21<sup>st</sup> - 27<sup>th</sup> September, 2020)****Multan**

Dry weather reported from Multan during the week; however, cloudiness in the morning/evening recorded as 0.3/0.0 Oktas while, average relative humidity observed as 49%. Mean day time temperature recorded as 38.0°C & for the recent week 182.7 growing degree days accumulated. Wind speed recorded in the morning/evening as 3.4/6.6 Knots.

**Lahore**

Dry weather reported from Lahore during the week; however, cloudiness in the morning/evening recorded as 0.3/1.3 Oktas while, average relative humidity observed as 55%. Mean day time temperature recorded as 37.2°C & for the recent week 192.2 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/1.7 Knots.

**Zhob**

Dry reported from Zhob during the week; however, clear sky observed in the morning/evening while, average relative humidity observed as 25%. Mean day time temperature recorded as 33.7°C & for the recent week 150.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 3.3/4.6 Knots.

**Murree**

Rainfall reported as 6.0 mm from Murree during the week; however, cloudiness in the morning/evening recorded as 1.6/1.7 Oktas while, average relative humidity observed as 55%. Mean day time temperature recorded as 24.6°C & for the recent week 104.9 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.4/0.9 Knots.

**D.I. Khan**

Dry weather reported from D.I. Khan during the week; however, clear sky observed in in the morning/evening while, average relative humidity observed as 23%. Mean day time temperature recorded as 38.9°C & for the recent week 186.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.6/3.4 Knots.

**Peshawar**

Rainfall reported as 4.6 mm from Peshawar during the week; however, cloudiness in the morning/evening recorded as 1.0/3.0 Oktas while, average relative humidity observed as 66%. Mean day time temperature recorded as 35.5°C & for the recent week 162.7 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/0.6 Knots.

**Kalam**

Rainfall reported as 15.0 mm from Kalam during the week; however, cloudiness in the morning/evening recorded as 1.7/3.1 Oktas while, average relative humidity observed as 37%. Mean day time temperature recorded as 25.6°C & for the recent week 74.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/0.9 Knots.

**Gilgit**

Rainfall reported as 4.0 mm from Gilgit during the week. However, cloudiness in the morning/evening recorded as 2.3/3.7 Oktas while, average relative humidity observed as 52%. Mean day time temperature recorded as 32.6 °C & for the recent week 144.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.7/0.9 Knots.

**Skardu**

Dry weather reported from Skardu during the week; however, cloudiness in the morning/evening recorded as 1.9/2.4 Oktas while, average relative humidity observed as 37%. Mean day time temperature recorded as 27.9°C & for the recent week 77.9 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.6/0.9 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 sown in the fields of RAMC Faisalabad.

**Cotton: V. Good, Maturity Stage.**

**Lower Sindh (Tandojam)**

Cotton crop is sown in the fields of RAMC Tandojam.

**Cotton Variety (Sindh-I): Good, Ball Opening Stage.**

**Northern Baluchistan (Quetta)**

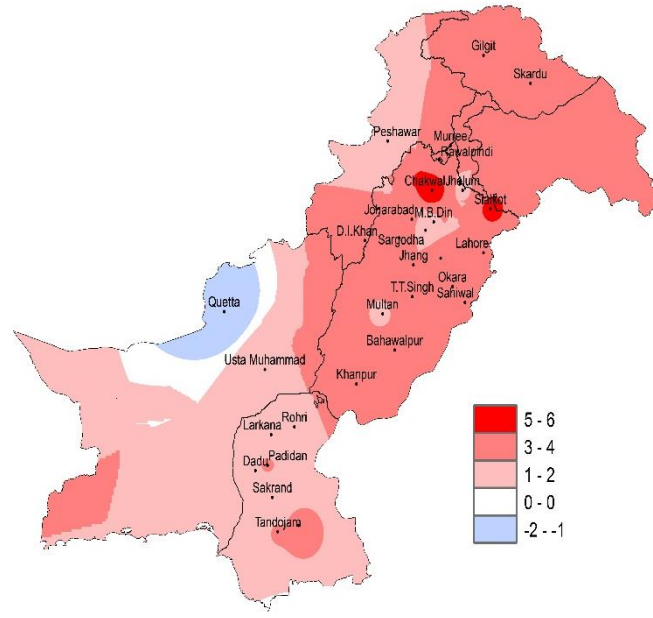
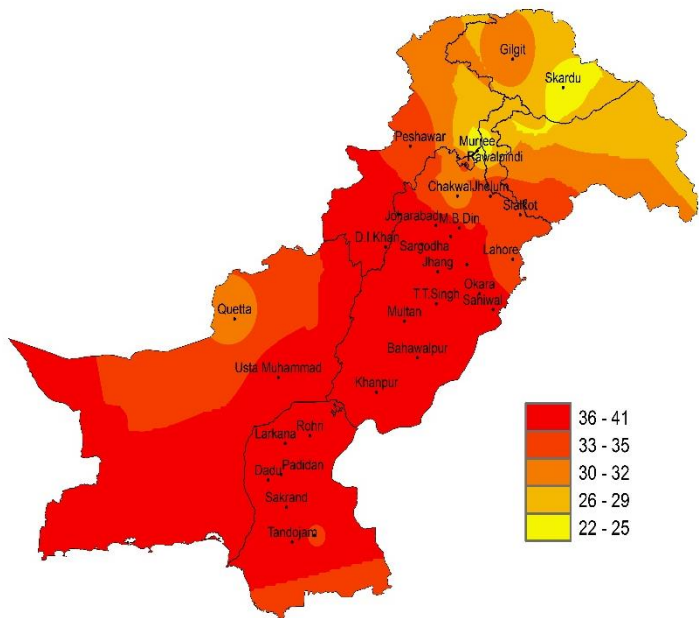
There is presently no crop grown in the fields of RAMC Quetta.

**Eastern Baluchistan (Usta Muhammad)**

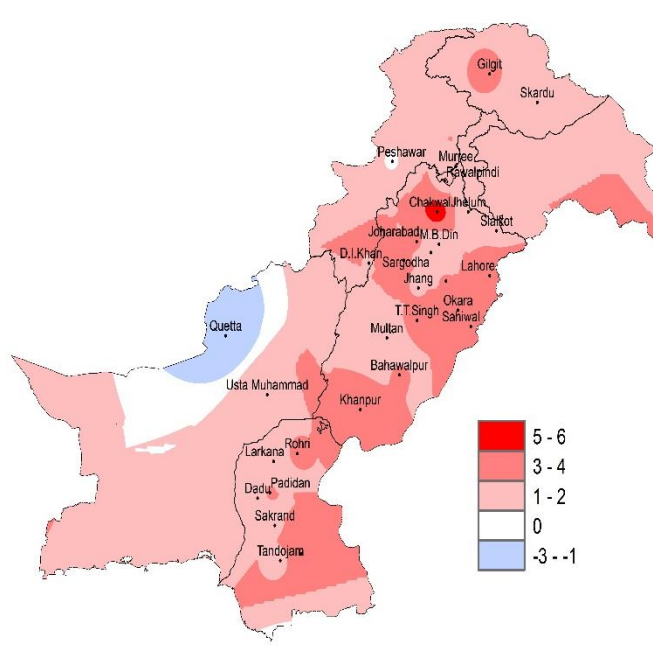
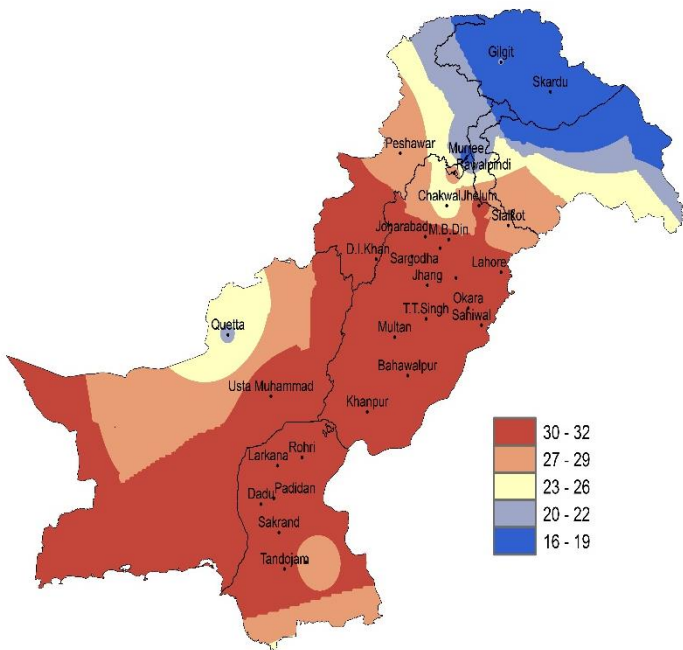
Rice crop is sown in the fields of RAMC Usta Muhammad.

**Rice: Good, Shooting Stage.**

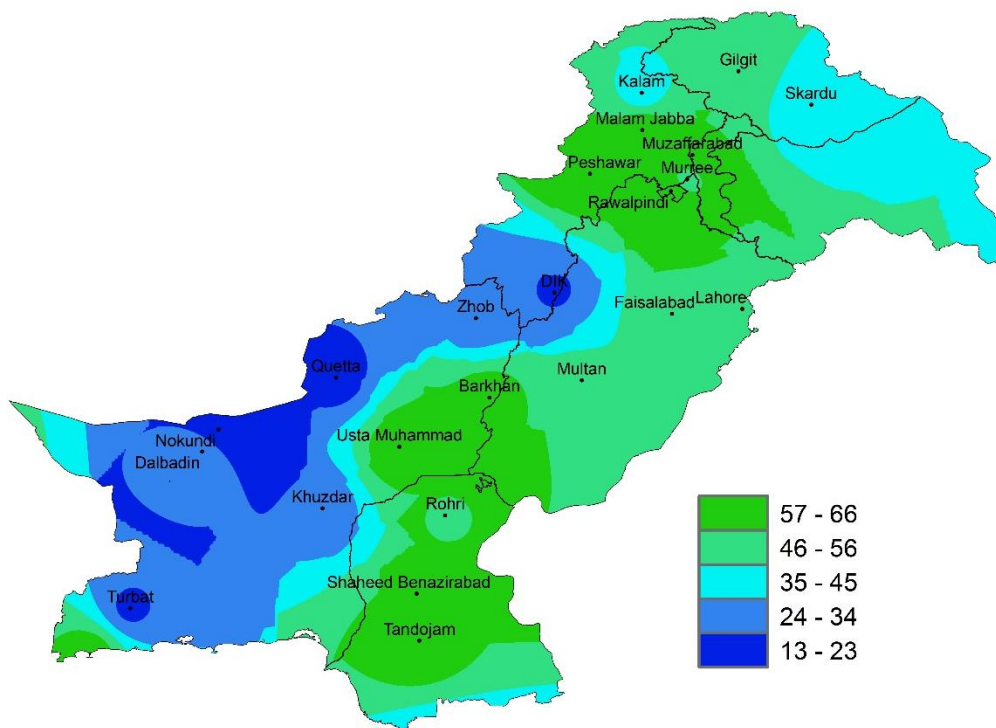
**Normal & Departure of Maximum temperature (°C) for the previous week (21<sup>st</sup> - 27<sup>th</sup> September, 2020)**



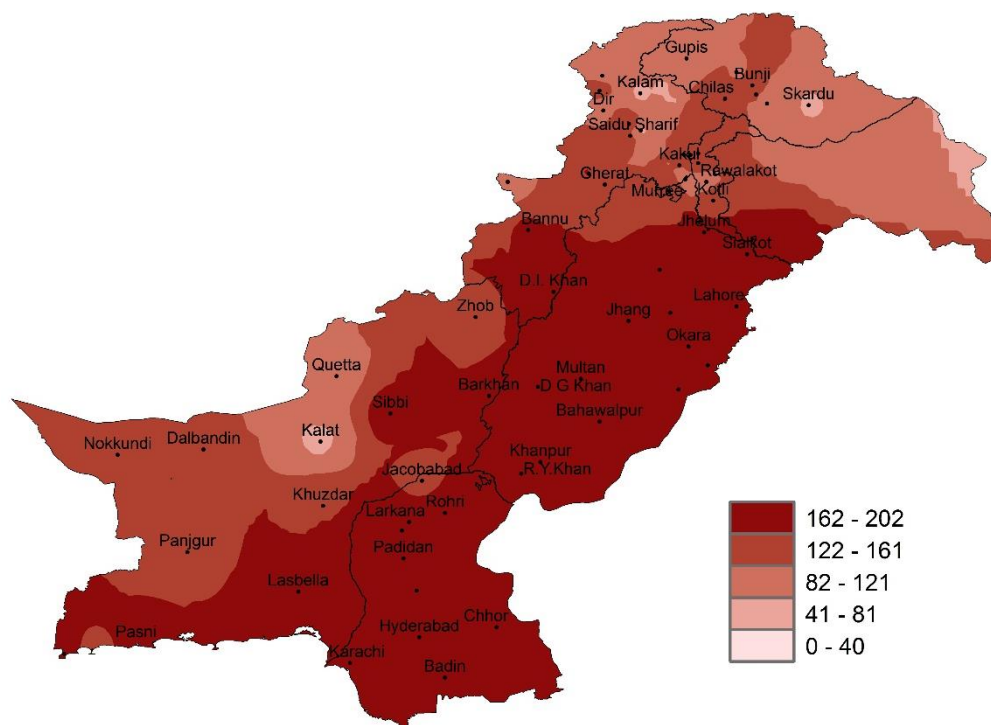
**Normal & Departure of Mean temperature (°C) for the previous week (21<sup>st</sup> - 27<sup>th</sup> September, 2020)**



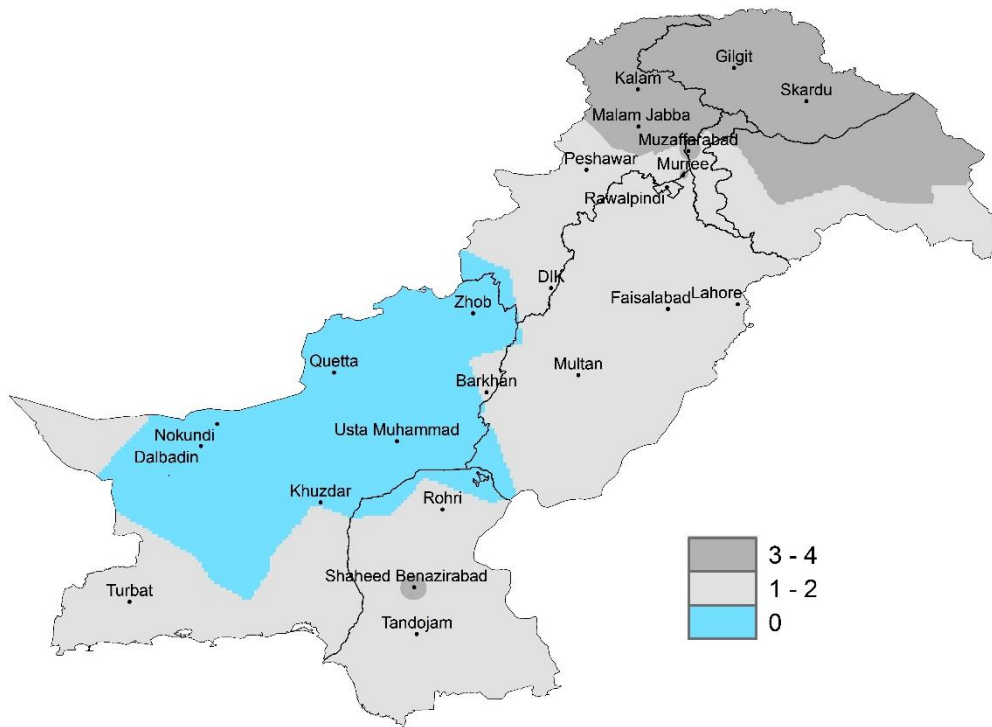
Mean Relative Humidity (%) during the previous week (21<sup>st</sup> - 27<sup>th</sup> September, 2020)



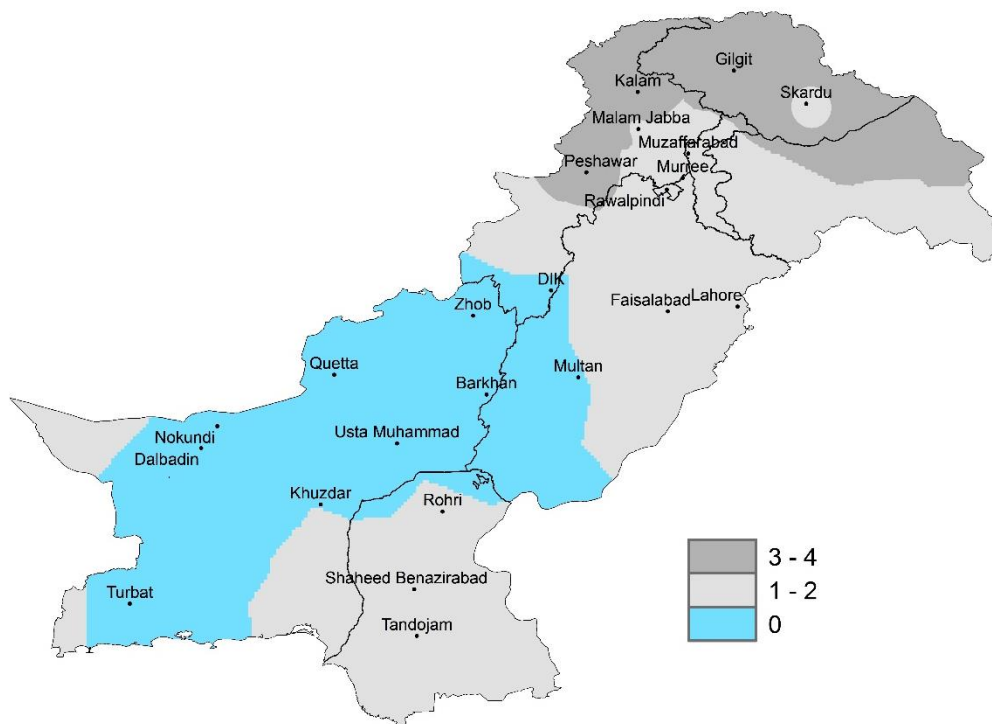
Total Growing Degree Days accumulated during the previous week (21<sup>st</sup> - 27<sup>th</sup> September, 2020)



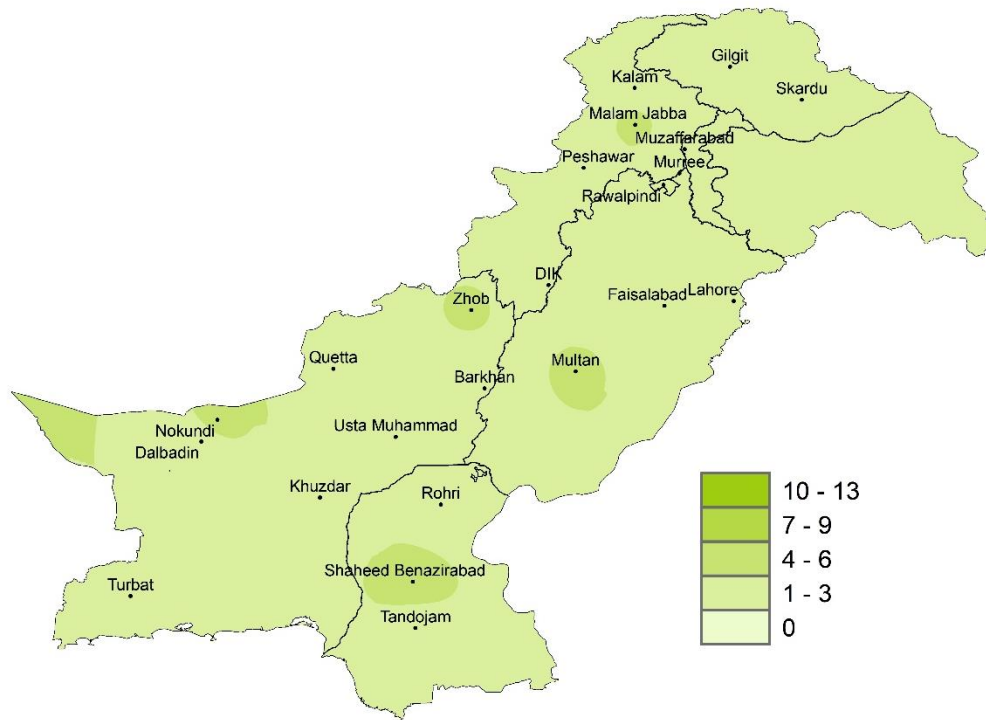
**Mean Cloudiness (Oktas) at 0800PST during the previous week (21<sup>st</sup> - 27<sup>th</sup> September, 2020)**



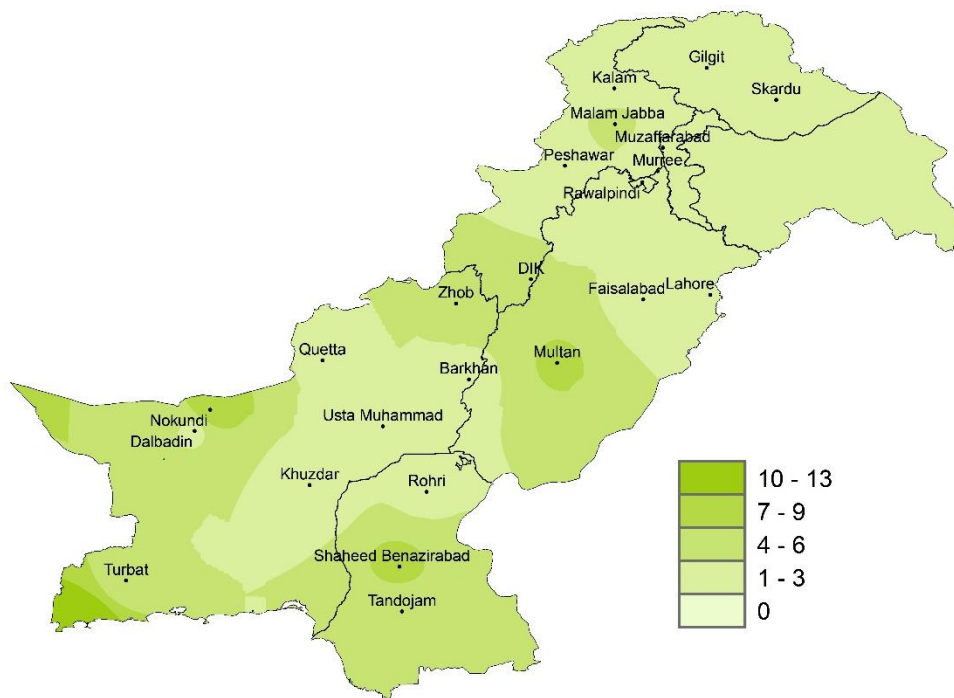
**Mean Cloudiness (Oktas) at 1700PST during the previous week (21<sup>st</sup> - 27<sup>th</sup> September, 2020)**



**Mean Wind Speed (Knots) at 0800PST during the previous week (21<sup>st</sup> - 27<sup>th</sup> September, 2020)**



**Mean Wind Speed (Knots) at 1700PST during the previous week (21<sup>st</sup> - 27<sup>th</sup> September, 2020)**





**Weekly Weather Advisory for Farmers**  
**(28<sup>th</sup> September – 4<sup>th</sup> October, 2020)**

A westerly wave is present over upper parts of the country.

**MONDAY**  
**28-09-2020**

Hot and dry weather is likely to prevail over most parts of the country. However, rain-thunderstorm is expected in upper Khyber-Pakhtunkhwa and Gilgit-Baltistan during evening/night.

**TUESDAY**  
**29-09-2020**

Hot and dry weather is likely to prevail over most parts of the country. However, rain-thunderstorm is expected in upper Khyber-Pakhtunkhwa, Potohar region, Gilgit-Baltistan and Kashmir during evening/night.

**WEDNESDAY**  
**30-09-2020**

Hot and dry weather is expected in most parts of the country. However, rain-thunderstorm is expected at a few places in upper Khyber-Pakhtunkhwa.

**THURSDAY**  
**01-10-2020**

Hot and dry weather is expected in most parts of the country. However, rain-thunderstorm is expected at a few places in Malakand division.

**FRIDAY**  
**02-10-2020**

Hot and dry weather is expected in most parts of the country.

**SATURDAY**  
**03-10-2020**

Hot and dry weather is expected in most parts of the country.

**SUNDAY**  
**04-10-2020**

Hot and dry weather is expected in most parts of the country. However, rain-thunderstorm is expected at a few places in Malakand division.

**ADVISORY FOR FARMERS**

During the last week, light to moderate rainfall observed in upper Khyber Pakhtunkhwa, Potohar region, Kashmir and Gilgit-Baltistan. Dry weather prevailed over Baluchistan, lower Khyber Pakhtunkhwa, Sindh, south/central Punjab. Keeping in view the expected weather conditions following advisories are suggested for farming community.

1. Farmers are advised to irrigate the crops according to its need.
2. Pesticides may be applied to avoid any pest attack as per advised by the agriculture department.
3. Apply necessary weed removing operations to the crops.

**National Weather Data of Selected Cities from (21<sup>st</sup> – 27<sup>th</sup> September, 2020)**

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	35.1	36.5	161.5	63	0.0	0.0	0.0	1.7	1.7
Dalbandin	35.4	37.0	145.5	31	0.0	0.0	0.0	0.9	2.0
D.I. Khan	38.9	40.5	186.5	23	0.0	0.0	0.0	0.6	3.4
Faisalabad	38.6	4.0	185.7	56	0.0	0.4	0.7	0.8	1.6
Gawadar	37.9	41.0	153.8	64	0.0	1.4	0.0	1.1	13.1
Gilgit	32.6	35.0	114.8	52	4.0	2.3	3.7	1.7	0.9
Kalam	25.6	27.5	74.5	37	15.0	1.7	3.1	0.0	0.9
Khuzdar	33.9	35.5	160.5	24	0.0	0.0	0.0	0.0	0.3
Lahore	37.2	38.0	192.2	55	0.0	0.3	1.3	0.0	1.7
Malam Jabba	19.9	21.0	68.3	66	5.0	2.0	2.4	4.0	4.6
Mangla	***	***	***	***	***	***	***	***	***
Multan (PBO)	38.0	39.7	182.7	49	0.0	0.3	0.0	3.4	6.6
Murree	24.6	27.0	104.9	55	6.0	1.6	1.7	1.4	0.9
Muzaffarabad	34.3	37.5	143.4	57	0.0	1.6	1.6	0.0	0.0
Nokkundi	41.3	44.0	201.8	56	0.0	1.6	1.3	4.6	7.1
Nawabshah	35.5	38.0	159.5	13	0.0	0.0	0.0	4.4	8.9
Peshawar	35.5	38.6	162.7	66	4.6	1.0	3.0	0.0	0.6
Quetta	28.5	30.5	102.5	17	0.0	0.0	0.0	2.1	2.6
Rawalpindi	35.4	37.2	161.2	57	0.0	0.6	1.4	0.6	1.1
Rohri	39.6	41.5	202.3	55	0.0	0.0	0.0	0.6	2.0
Skardu	27.9	29.2	77.9	37	0.0	1.9	2.4	0.6	0.9
Tandojam	38.1	41.0	185.2	66	0.0	1.4	0.8	1.5	3.2
Turbat	42.2	43.5	203.3	21	0.0	0.0	0.0	2.4	3.0
Usta. M	38.6	39.0	193.5	67	0.0	0.0	0.0	0.2	0.0
Zhob	33.7	35.0	150.5	25	0.0	0.0	0.0	3.3	4.6

\*\*\* 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 2012-2014)