

Weekly Weather and Crop Bulletin for Pakistan

NATIONAL AGROMET CENTRE PAKISTAN

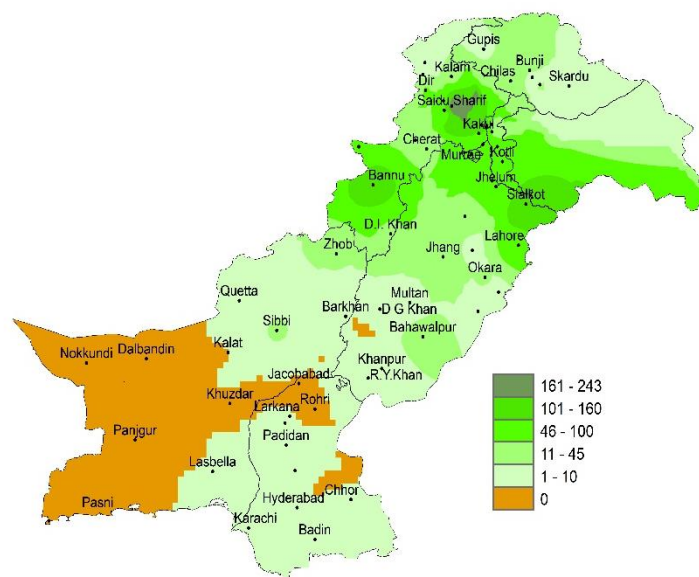
METEOROLOGICAL DEPARTMENT SECTOR H-8/2,

ISLAMABAD

Phone: +92-51-9250299

Email: dirnamc@yahoo.com

Rainfall Distribution (mm) during the Previous Week (26th July – 1st August, 2021)



Contents

Highlights of past weather	1-2
Past weather for Agri Plains	3-4
Crop progress	4
Agro meteorological parameters	
• Temperature	5
• R.H and GDD	6
• Wind speed	7
• Cloudiness	8
Advisory for Farmers	9
Weather Outlook	10
National data for selected stations	11
AgMIP project findings	12

Highlights of Past Weather (26th July – 1st August, 2021)

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

Rainfall reported as follows during the last week:

1. Light to moderate rainfall (with few heavy falls) reported from Punjab, Khyber Pakhtunkhwa, Kashmir and Gilgit-Baltistan.
2. Light rainfall reported from a few stations in Baluchistan.

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

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

Editor: Ruqiya Mehmood (Assistant Meteorologist)

Past Weather of Provinces (26th July – 1st August, 2021)**Punjab**

Light to moderate rainfall (with few heavy falls) reported from Punjab during the week. Weekly maximum and minimum temperatures recorded as 34.6°C & 26.8°C respectively. For the recent week on average 179.7 growing degree days were accumulated. Average relative humidity recorded as 78% and wind speed in the morning/evening recorded as 2.7/4.2 Knots. During the previous week the highest precipitation was observed as 184.0 mm at Sialkot while the highest maximum temperature was recorded as 42.5°C at Bhakkar.

Baluchistan

Light rainfall reported from a few stations in Baluchistan during the week. Weekly maximum and minimum temperatures recorded as 37.8°C & 25.9°C respectively. For the recent week on average 187.9 growing degree days were accumulated. Average relative humidity recorded as 56% and wind speed in the morning/evening recorded as 1.7/5.8 Knots. During the previous week the highest precipitation was observed as 12.0 mm at Zhob while the highest maximum temperature was recorded as 47.0°C at Sibbi.

Khyber Pakhtunkhwa

Light to moderate rainfall (with few heavy falls) reported from Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 32.8°C & 22.2°C respectively. For the recent week on average 157.3 growing degree days were accumulated. Average relative humidity recorded as 79% and wind speed in the morning/evening recorded as 1.2/2.3 Knots. During the previous week the highest precipitation was observed as 260.0 mm at Malamjabba while the highest maximum temperature was recorded as 43.0°C at D.I.Khan.

Sindh

Dry weather reported from Sindh during the week. Weekly maximum and minimum temperatures

recorded as 36.6°C & 27.8°C respectively. For the recent week, on average 190.6 growing degree days were accumulated. Average relative humidity recorded as 60% and wind speed in the morning/evening recorded as 5.2/7.0 Knots. During the previous week the highest maximum temperature was recorded as 43.0°C at Jacobabad.

Gilgit-Baltistan and Azad Jammu & Kashmir

Light to moderate rainfall (with few heavy falls) reported from Gilgit-Baltistan, Azad Jammu & Kashmir during the week. Weekly maximum and minimum temperatures recorded as 33.2°C & 21.3°C respectively. For the recent week on average 156.3 growing degree days were accumulated. Average relative humidity recorded as 64% and wind speed in the morning/evening recorded as 0.9/4.1 Knots. During the previous week the highest precipitation was observed as 133.0 mm at Muzaffarabad while the highest maximum temperature was recorded as 46.5°C at Chillas.

Past Weather for Major Agricultural Plains**(26th July – 1st August, 2021)****Rawalpindi (Potohar region)**

Rainfall reported as 48.7 mm from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 6.0/5.3 Oktas while, average relative humidity observed as 80%. Mean day time temperature recorded as 40.6°C & for the recent week 185.4 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.5/0.8 Knots.

Faisalabad (Central Punjab)

Rainfall reported as 29.0 mm from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 5.7/5.1 Oktas while, average relative humidity observed as 73%. Mean day time temperature recorded as 34.7°C & for the recent week 181.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.1/0.9 Knots.

Tandojam (Lower Sindh)

Dry weather reported from Tandojam during the week; however, cloudiness in the morning/evening recorded as 4.6/0.0 Oktas while, average relative humidity observed as 68%. Mean day time temperature recorded as 35.4°C & for the recent week 183.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 4.3/4.3 Knots.

Usta Muhammad (Eastern Baluchistan)

Dry weather reported from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded as 3.7/0.0 Oktas while, average relative humidity observed as 56%. Mean day time temperature recorded as 40.0°C & for the recent week 210.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.5/0.8 Knots.

Quetta (Northern Baluchistan)

Rainfall reported as 5.1 mm from Quetta during the week; however, cloudiness in the morning/evening recorded as 1.6/1.6 Oktas while, average relative humidity observed as 72%. Mean day time temperature recorded as 35.8°C & for the recent week 154.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.7/3.2 Knots.

Past Weather for Sub-Regional Agricultural Plains (26th July – 1st August, 2021)**Multan**

Dry weather reported from Multan during the week; however, cloudiness in the morning/evening recorded as 5.6/5.0 Oktas while, average relative humidity observed as 62%. Mean day time temperature recorded as 37.4°C & for the recent week 197.6 growing degree days accumulated. Wind speed recorded in the morning/evening as 6.6/6.3 Knots.

Lahore

Rainfall reported as 89.3 mm from Lahore during the week; cloudiness in the morning/evening recorded as 4.8/6.8 Oktas while, average relative humidity observed as 80%. Mean day time temperature recorded as 33.1°C & for the recent week 176.6 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.5/4.5 Knots.

Zhob

Rainfall reported as 12.0 mm from Zhob during the week; however, cloudiness in the morning/evening recorded as 2.3/3.1 Oktas while, average relative humidity observed as 38%. Mean day time temperature recorded as 38.9°C & for the recent week 183.0 growing degree days accumulated. cloudiness in the morning/evening recorded as 2.9/2.6 Oktas.

Murree

Rainfall reported as 85.3 mm from Murree during the week; however, cloudiness in the morning/evening recorded as 6.7/7.9 Oktas while, average relative humidity observed as 91%. Mean day time temperature recorded as 23.0°C & for the recent week 107.9 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.1/1.7 Knots.

D.I. Khan

Rainfall reported as 37.0 mm from D.I. Khan during the week; however, cloudiness in the morning/evening recorded as 5.7/4.0 Oktas while, average relative humidity observed as 73%. Mean day time temperature recorded as 38.4°C & for the recent week 194.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.3/0.3 Knots.

Peshawar

Rainfall reported as 31.0 mm from Peshawar during the week; however, cloudiness in the morning/evening recorded as 7.0/5.9 Oktas while, average relative humidity observed as 77%. Mean day time temperature recorded as 35.5°C & for the recent week 180.9 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.6/2.9 Knots.

Kalam

Rainfall reported as 19.0 mm from Kalam during the week; however, cloudiness in the morning/evening recorded as 6.6/4.9 Oktas while, average relative humidity observed as 39%. Mean day time temperature recorded as 26.9°C & for the recent week 113.7 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/3.1 Knots.

Gilgit

Rainfall reported as 10.3 mm from Gilgit during the week. However, cloudiness in the morning/evening recorded as 4.0/5.9 Oktas while, average relative humidity observed as 57%. Mean day time temperature recorded as 35.5°C & for the recent week 164.6 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/4.9 Knots.

Skardu

Rainfall reported as 0.6 mm from Skardu during the week; however, cloudiness in the morning/evening recorded as 3.7/8.0 Oktas while, average relative humidity observed as 39%. Mean day time temperature recorded as 33.5°C & for the recent week 147.9 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.3/3.1 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, Flowering Stage.

Lower Sindh (Tandojam)

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

Cotton: Crop Variety (Sindh-1), Boll Formation Stage.

Northern Baluchistan (Quetta)

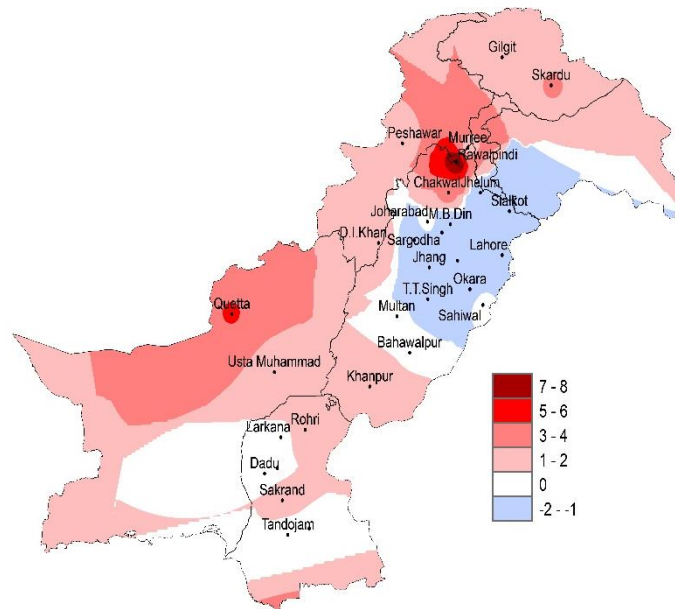
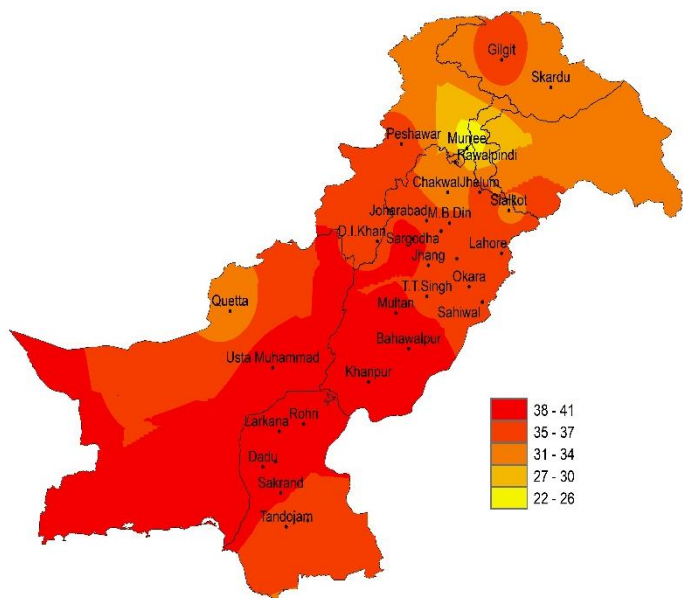
There is presently no crop grown in the fields of RAMC Quetta.

Eastern Baluchistan (Usta Muhammad)

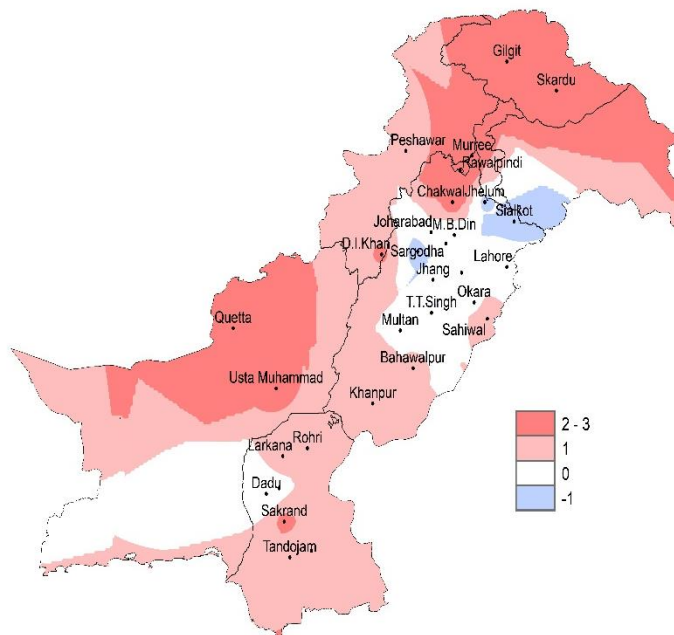
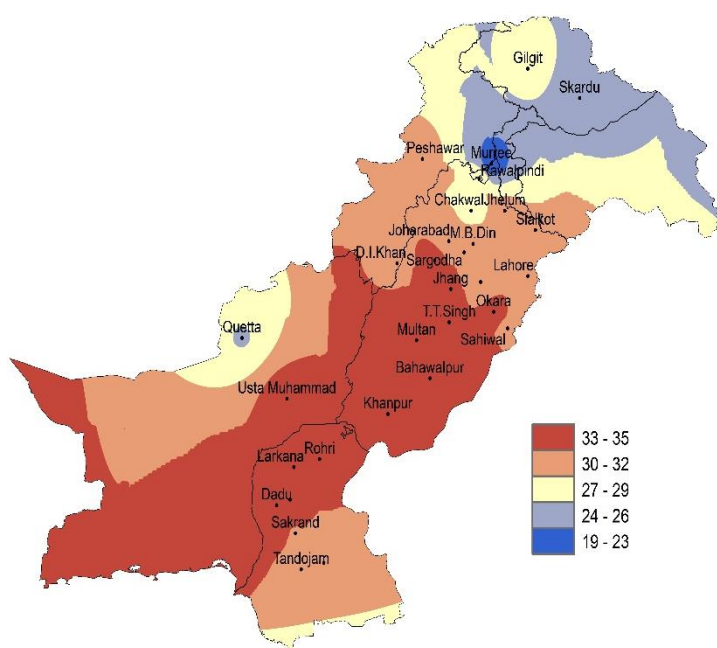
Presently Rice crop is sown in the fields of RAMC Usta Muhammad.

Rice: Good, Third Leaf Stage.

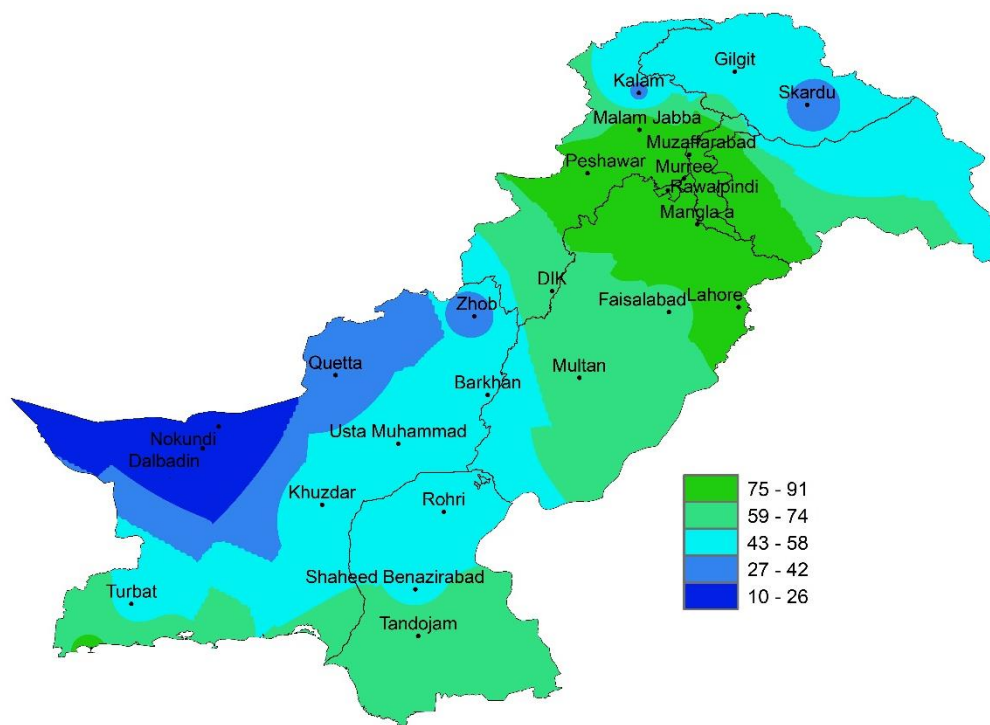
Normal & Departure of Maximum temperature (°C) for the previous week (26th July – 1st August, 2021)



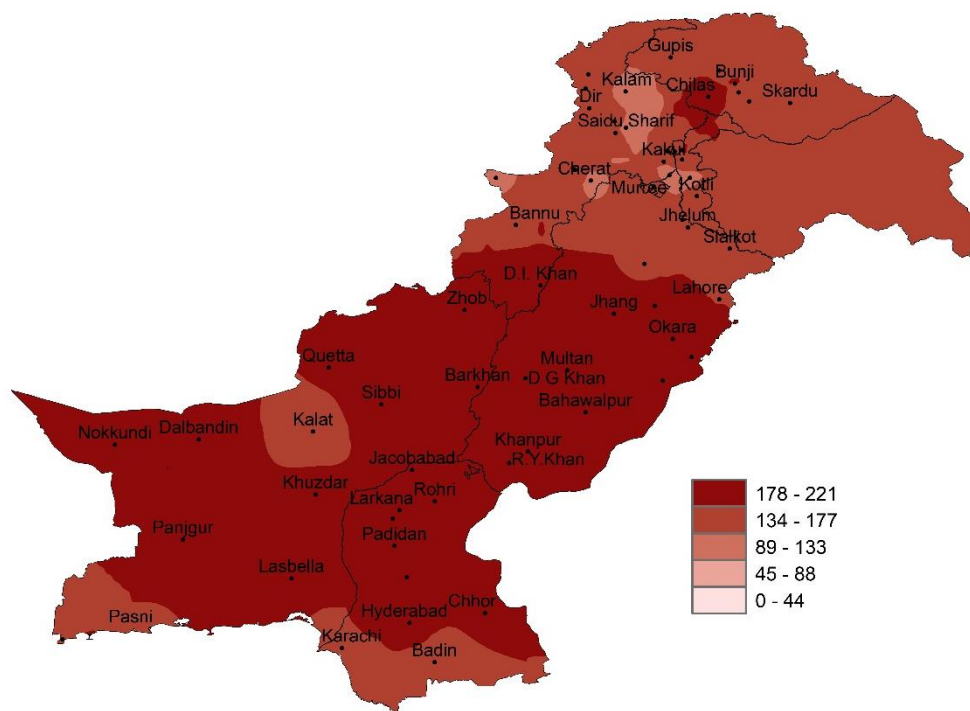
Normal & Departure of Mean temperature (°C) for the previous week (26th July – 1st August, 2021)



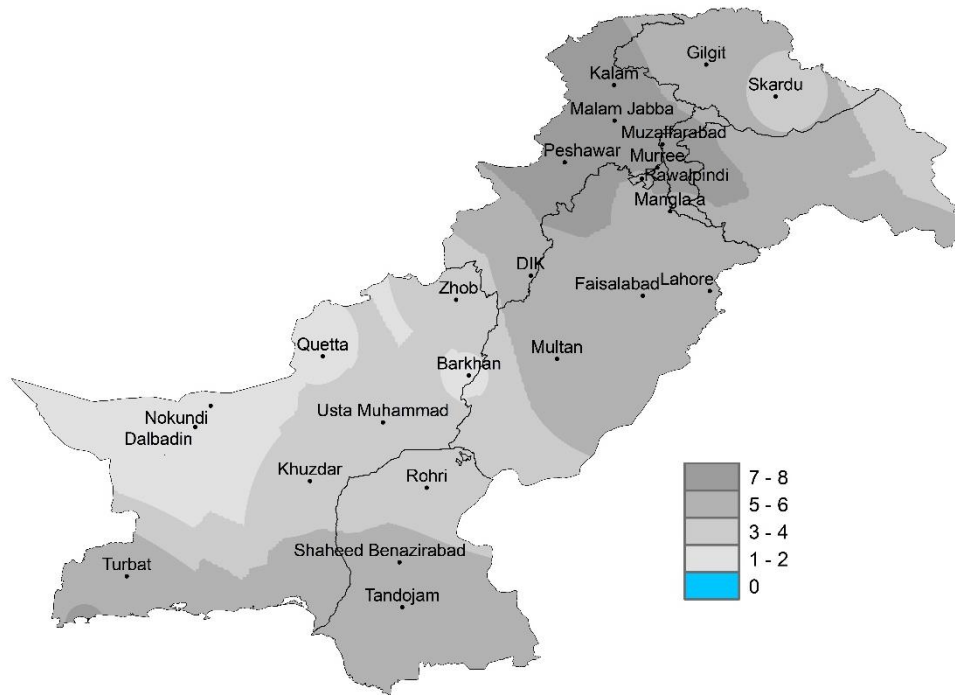
Mean Relative Humidity (%) during the previous week (26th July – 1st August, 2021)



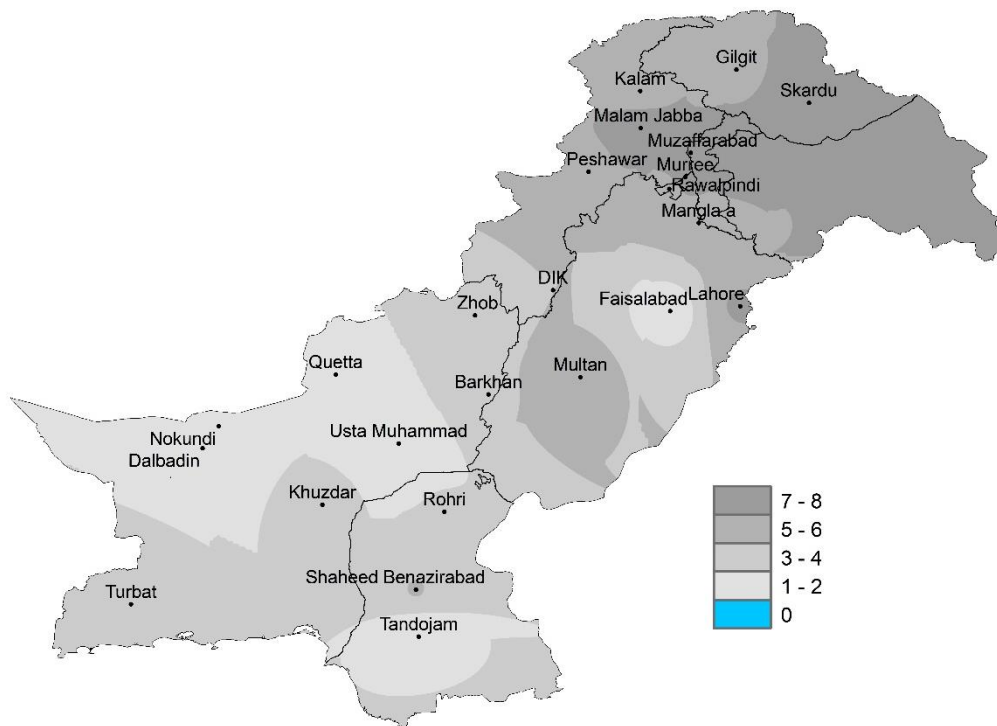
Total Growing Degree Days accumulated during the previous week (26th July – 1st August, 2021)



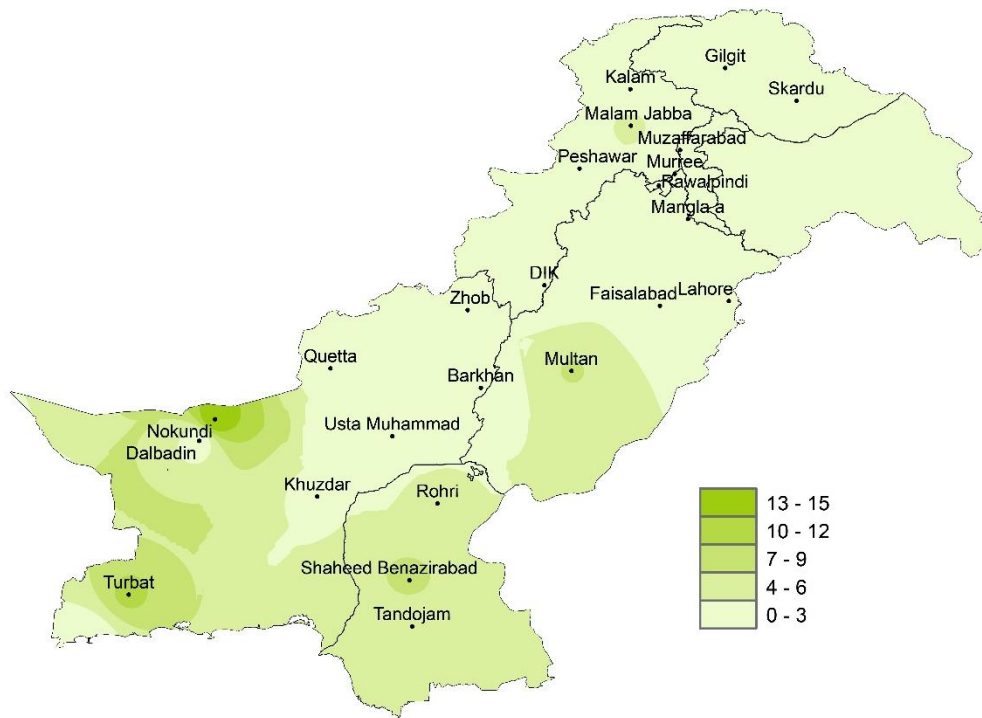
Mean Cloudiness (Oktas) at 0800PST during the previous week (26th July – 1st August, 2021)



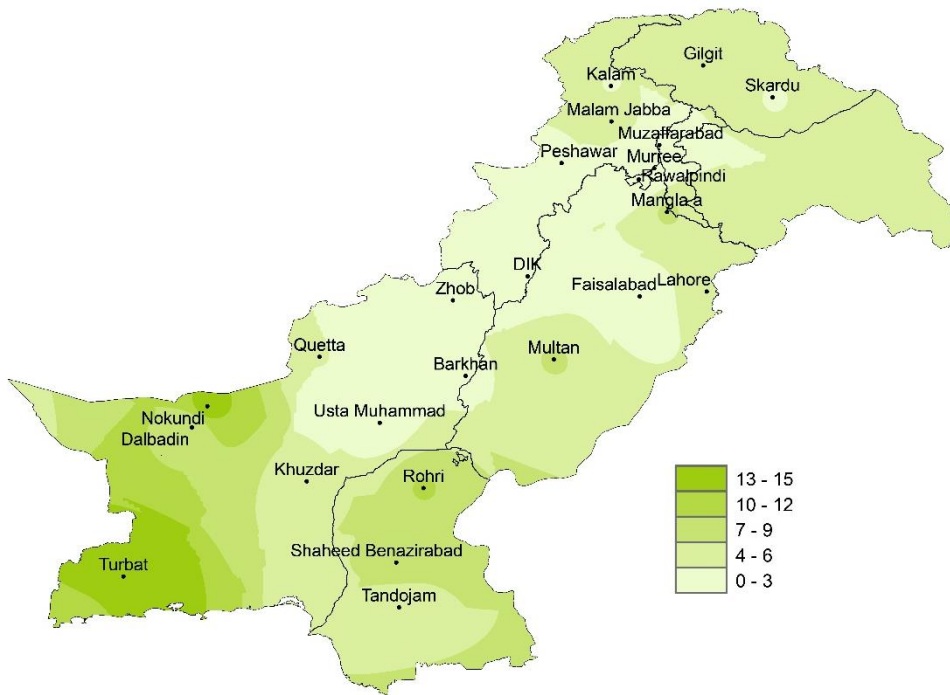
Mean Cloudiness (Oktas) at 1700PST during the previous week (26th July – 1st August, 2021)



Mean Wind Speed (Knots) at 0800PST during the previous week (26th July – 1st August, 2021)



Mean Wind Speed (Knots) at 1700PST during the previous week (26th July – 1st August, 2021)



Weekly Weather Advisory for Farmers**(2nd – 8th August, 2021)**

Monsoon currents are still penetrating upper and central parts of the country and likely to continue during next few days. A shallow westerly wave is also present over upper parts of the country.

MONDAY**02-08-2021**

Hot and humid weather is likely to prevail over most parts in the country. However, rain-wind/thundershower is expected in Kashmir, Islamabad, upper/central Punjab, Khyber Pakhtunkhwa and Gilgit-Baltistan.

TUESDAY**03-08-2021**

Hot and humid weather is likely to prevail over most parts in the country. However, rain-wind/thundershower is expected in Kashmir, Pothohar region, northeast Punjab, Khyber Pakhtunkhwa and Gilgit-Baltistan. Isolated heavy falls are also expected during the period.

WEDNESDAY**04-08-2021**

Hot and humid weather is likely to prevail over most parts of the country. However, rain-wind/thundershower is expected in Upper Khyber Pakhtunkhwa, Kashmir, Gilgit-Baltistan and upper Punjab.

THURSDAY**05-08-2021**

Hot and humid weather is likely to prevail over most parts of the country. However, rain-wind/thundershower is expected in upper Khyber Pakhtunkhwa, Kashmir, Potohar region and northeast Punjab.

FRIDAY**06-08-2021.**

Hot and humid weather is likely to prevail over most parts of the country. However, rain-wind/thundershower is expected in upper Khyber Pakhtunkhwa, Kashmir, Gilgit Baltistan and upper Punjab.

SATURDAY**07-08-2021**

Hot and humid weather is likely to prevail over most parts of the country. However, rain-

wind/thundershower is expected in upper Khyber Pakhtunkhwa, Kashmir, Gilgit Baltistan and upper Punjab.

SUNDAY**08-08-2021**

Hot and humid weather is likely to prevail over most parts of the country. However, rain-wind/thundershower is expected in upper Khyber Pakhtunkhwa, Kashmir, Gilgit Baltistan and upper Punjab.

ADVISORY FOR FARMERS

During the last week, light to moderate rainfall (with few heavy falls) reported from Punjab, Khyber Pakhtunkhwa, Kashmir and Gilgit-Baltistan. Light rainfall reported from a few stations in 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.
- ❖ Pesticides may be applied to avoid any pest attack.

National Weather Data of Selected Cities from (26th July – 1st August, 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	36.5	39.0	178.3	56	0.0	1.7	3.9	0.3	2.6
Dalbandin	43.9	46.0	217.8	23	0.0	0.3	1.7	0.3	6.0
D.I. Khan	38.4	43.0	194.0	73	37.0	5.7	4.0	0.3	0.3
Faisalabad	34.7	37.0	181.0	73	29.0	5.7	0.7	1.1	0.9
Gawadar	33.4	34.5	177.3	76	0.0	6.4	2.3	0.0	10.9
Gilgit	35.5	41.0	164.6	57	10.3	4.0	5.9	0.0	4.9
Kalam	26.9	29.0	113.7	39	19.0	6.6	4.9	0.0	3.1
Khuzdar	39.9	41.0	193.3	52	0.0	3.7	2.7	2.3	4.0
Lahore	33.1	34.2	176.6	80	89.3	4.8	6.8	0.5	4.5
Malam Jabba	20.9	24.0	88.5	89	260.0	7.7	8.0	4.0	4.0
Mangla	31.9	35.6	166.3	83	100.4	6.0	5.1	3.1	6.6
Multan (PBO)	37.4	41.0	197.6	62	0.0	5.6	5.0	6.6	6.3
Murree	23.0	25.5	107.9	91	85.3	6.7	7.9	1.1	1.7
Muzaffarabad	33.5	36.0	167.9	78	133.3	7.1	7.1	0.0	1.7
Nokkundi	40.4	42.5	204.5	56	0.0	4.6	4.1	6.9	7.4
Nawabshah	43.1	45.5	221.0	10	0.0	0.0	0.4	16.0	14.0
Peshawar	35.5	39.5	180.9	77	31.0	7.0	5.9	0.6	2.9
Quetta	35.8	38.5	154.8	27	5.1	1.6	1.6	1.7	3.2
Rawalpindi	40.6	42.0	185.4	80	48.7	6.0	5.3	0.5	0.8
Rohri	40.1	42.0	207.2	56	0.0	2.9	2.1	4.6	9.1
Skardu	33.5		147.9		0.6	3.7	8.0	0.3	3.1
Tandojam	35.4	37.5	183.0	68	0.0	4.6	0.0	4.3	4.3
Turbat	40.5	41.0	206.8	56	0.0	4.0	3.3	9.7	14.7
Usta. M	40.0	43.0	210.8	56	0.0	3.7	0.0	0.5	0.8
Zhob	38.9	41.0	183.0	38	12.0	2.3	3.1	2.9	2.6

*** 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 2014-2012)