

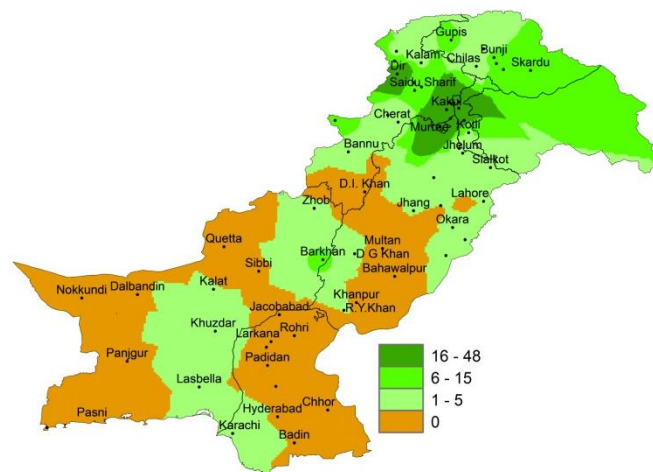
Weekly Weather and Crop Bulletin for Pakistan

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 (23rd – 29th August, 2021)

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

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

Editor: Ruqiya Mehmood (Assistant Meteorologist)

Highlights of Past Weather (23rd – 29th August, 2021)

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

Rainfall reported as follows during the last week:

1. Light to moderate rainfall reported from Punjab, Khyber Pakhtunkhwa, Gilgit-Baltistan, Azad and Jamu Kashmir.
2. Light rainfall reported from Baluchistan and Sindh.

Past Weather of Provinces (23rd – 29th August, 2021)**Punjab**

Light to moderate rainfall reported from upper Punjab during the week. Weekly maximum and minimum temperatures recorded as 37.3°C & 26.6°C respectively. For the recent week on average 188.6 growing degree days were accumulated. Average relative humidity recorded as 69% and wind speed in the morning/evening recorded as 4.5/4.7 Knots. During the previous week the highest precipitation was observed as 48.0 mm at Islamabad while the highest maximum temperature was recorded as 42.0°C at Bahwalnagar.

Baluchistan

Light rainfall reported from northeast Baluchistan during the week. Weekly maximum and minimum temperatures recorded as 36.5°C & 23.2°C respectively. For the recent week on average 174.0 growing degree days were accumulated. Average relative humidity recorded as 44% and wind speed in the morning/evening recorded as 1.4/6.7 Knots. During the previous week the highest precipitation was observed as 6.0 mm at Barkhan while the highest maximum temperature was recorded as 44.5°C at Sibbi.

Khyber Pakhtunkhwa

Light to moderate rainfall reported from upper Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 34.0°C & 21.2°C respectively. For the recent week on average 158.3 growing degree days were accumulated. Average relative humidity recorded as 65% and wind speed in the morning/evening recorded as 0.6/2.1 Knots. During the previous week the highest precipitation was observed as 37.6 mm at Dir while the highest maximum temperature was recorded as 42.0°C at D.I.Khan.

Sindh

Light rainfall reported from Sindh during the week. Weekly maximum and minimum temperatures

recorded as 37.7°C & 26.2°C respectively. For the recent week, on average 189.1 growing degree days were accumulated. Average relative humidity recorded as 60% and wind speed in the morning/evening recorded as 5.3/6.7 Knots. During the previous week the highest maximum temperature was recorded as 44.5°C at Dadu.

Gilgit-Baltistan and Azad Jammu & Kashmir

Light to moderate rainfall reported from Gilgit-Baltistan and Azad Jammu & Kashmir during the week. Weekly maximum and minimum temperatures recorded as 33.0°C & 19.7°C respectively. For the recent week on average 149.3 growing degree days were accumulated. Average relative humidity recorded as 57% and wind speed in the morning/evening recorded as 0.2/2.6 Knots. During the previous week the highest precipitation was observed as 29.0 mm at Garhi Dupatta while the highest maximum temperature was recorded as 41.5°C at Chillas.

Past Weather for Major Agricultural Plains**(23rd – 29th August, 2021)****Rawalpindi (Potohar region)**

Rainfall reported as 4.96 mm from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 2.7/1.6 Oktas while, average relative humidity observed as 74%. Mean day time temperature recorded as 35.7°C & for the recent week 177.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.8/0.2 Knots.

Faisalabad (Central Punjab)

Dry weather reported from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 1.3/2.7 Oktas while, average relative humidity observed as 58%. Mean day time temperature recorded as 38.6°C & for the recent week 194.9 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.7/1.0 Knots.

Tandojam (Lower Sindh)

Dry weather reported from Tandojam during the week; however, cloudiness in the morning/evening recorded as 1.1/0.4 Oktas while, average relative humidity observed as 69%. Mean day time temperature recorded as 36.1°C & for the recent week 182.6 growing degree days accumulated. Wind speed recorded in the morning/evening as 4.3/6.8 Knots.

Usta Muhammad (Eastern Baluchistan)

Dry weather reported from Usta Muhammad during the week; however, clear skies were observed while, average relative humidity observed as 64%. Mean day time temperature recorded as 38.6°C & for the recent week 194.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.4/3.6 Knots.

Quetta (Northern Baluchistan)

Dry weather reported from Quetta during the week; however, cloudiness in the morning/evening recorded as 0.0/0.7 Oktas while, average relative humidity observed as 26%. Mean day time temperature recorded as 32.8°C & for the recent week 134.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.4/3.6 Knots.

Past Weather for Sub-Regional Agricultural Plains (23rd – 29th August, 2021)**Multan**

Dry weather reported from Multan during the week; however, cloudiness in the morning/evening recorded as 0.7/1.4 Oktas while, average relative humidity observed as 58%. Mean day time 187.7 growing degree days accumulated. Wind speed recorded in the morning/evening as 10.6/8.0 Knots.

Lahore

Dry weather reported from Lahore during the week; cloudiness in the morning/evening recorded as 1.2/2.0 Oktas while, average relative humidity observed as 64%. Mean day time temperature recorded as 36.8°C & for the recent week 192.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/5.0 Knots.

Zhob

Dry weather reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 0.6/1.7 Oktas while, average relative humidity observed as 38%. Mean day time temperature recorded as 36.6°C & for the recent week 175.8 growing degree days accumulated. cloudiness in the morning/evening recorded as 3.6/6.1 Oktas.

Murree

Rainfall reported as 36.0 mm from Murree during the week; however, cloudiness in the morning/evening recorded as 4.3/6.7 Oktas while, average relative humidity observed as 87%. Mean day time temperature recorded as 23.7°C & for the recent week 103.7 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.9/1.1 Knots.

D.I. Khan

Rainfall reported as 1.0mm from D.I. Khan during the week; however, cloudiness in the morning/evening recorded as 2.4/0.0 Oktas while, average relative humidity observed as 61%. Mean day time temperature recorded as 40.6°C & for the recent week 205.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.6/0.6 Knots.

Peshawar

Dry weather reported from Peshawar during the week; however, cloudiness in the morning/evening

recorded as 3.6/6.1 Oktas while, average relative humidity observed as 63%. Mean day time temperature recorded as 38.4°C & for the recent week 195.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.6/2.6 Knots.

Kalam

Rainfall reported as 3.5mm from Kalam during the week; however, cloudiness in the morning/evening recorded as 1.3/5.0 Oktas while, average relative humidity observed as 39%. Mean day time temperature recorded as 26.90°C & for the recent week 99.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/2.1 Knots.

Gilgit

Rainfall reported as 0.4mm from Gilgit during the week. However, cloudiness in the morning/evening recorded as 4.4/5.4 Oktas while, average relative humidity observed as 55%. Mean day time temperature recorded as 33.9°C & for the recent week 148.1 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/0.9 Knots.

Skardu

Rainfall reported as 6.7mm from Skardu during the week; however, cloudiness in the morning/evening recorded as 4.3/4.4 Oktas while, average relative humidity observed as 39%. Mean day time temperature recorded as 31.8°C & for the recent week 134.1 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, Flowering Stage Completed.

Lower Sindh (Tandojam)

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

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

Northern Baluchistan (Quetta)

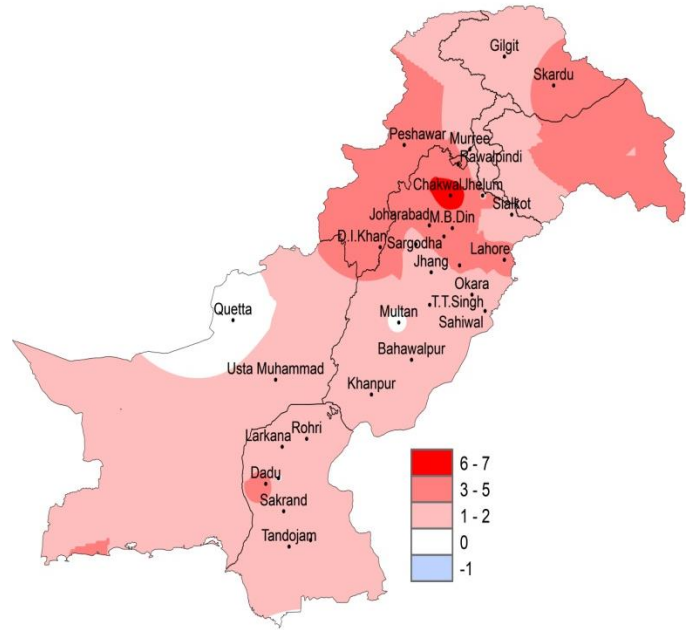
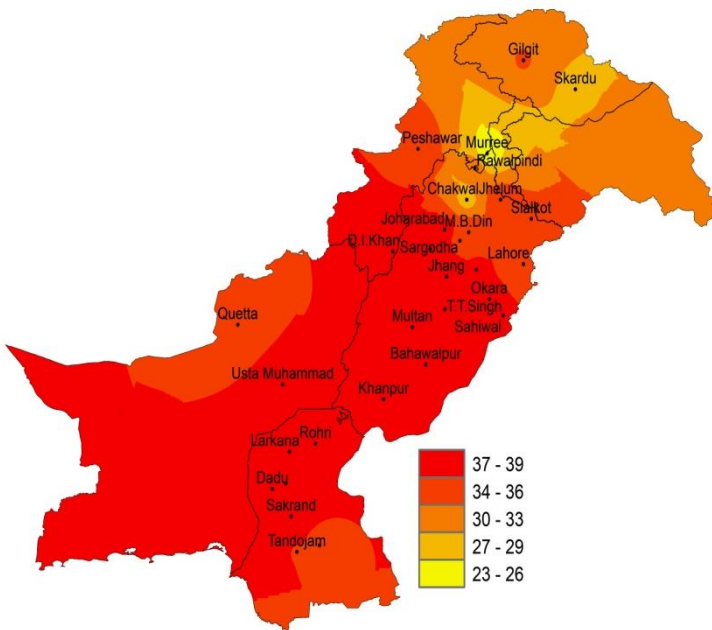
There is presently no crop grown in the fields of RAMC Quetta.

Eastern Baluchistan (Usta Muhammad)

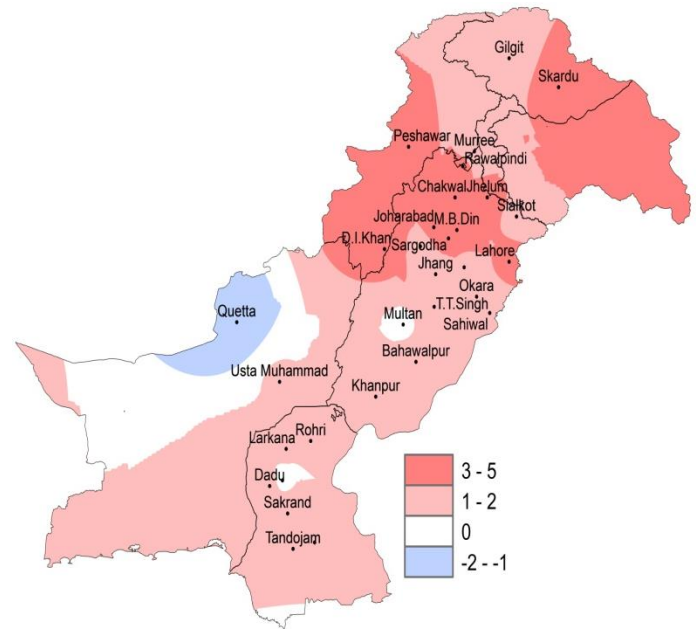
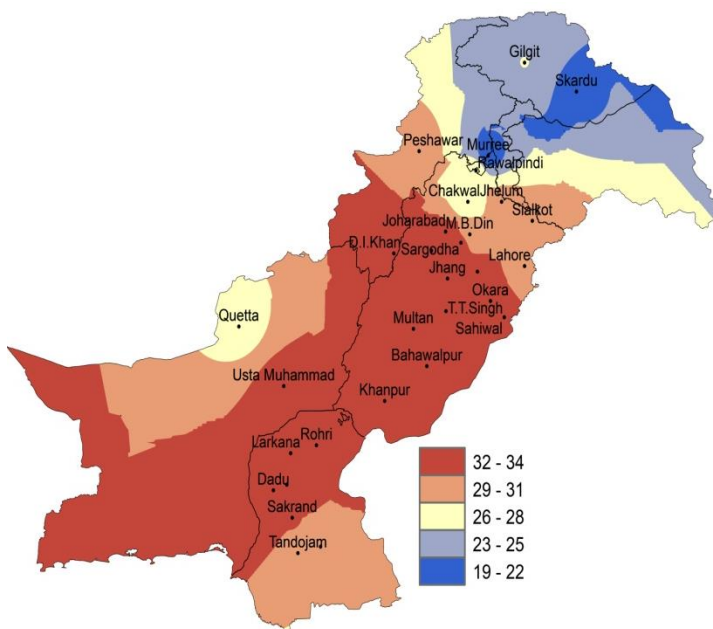
Presently Rice crop is sown in the fields of RAMC Usta Muhammad.

Rice: Good, Tillering Stage.

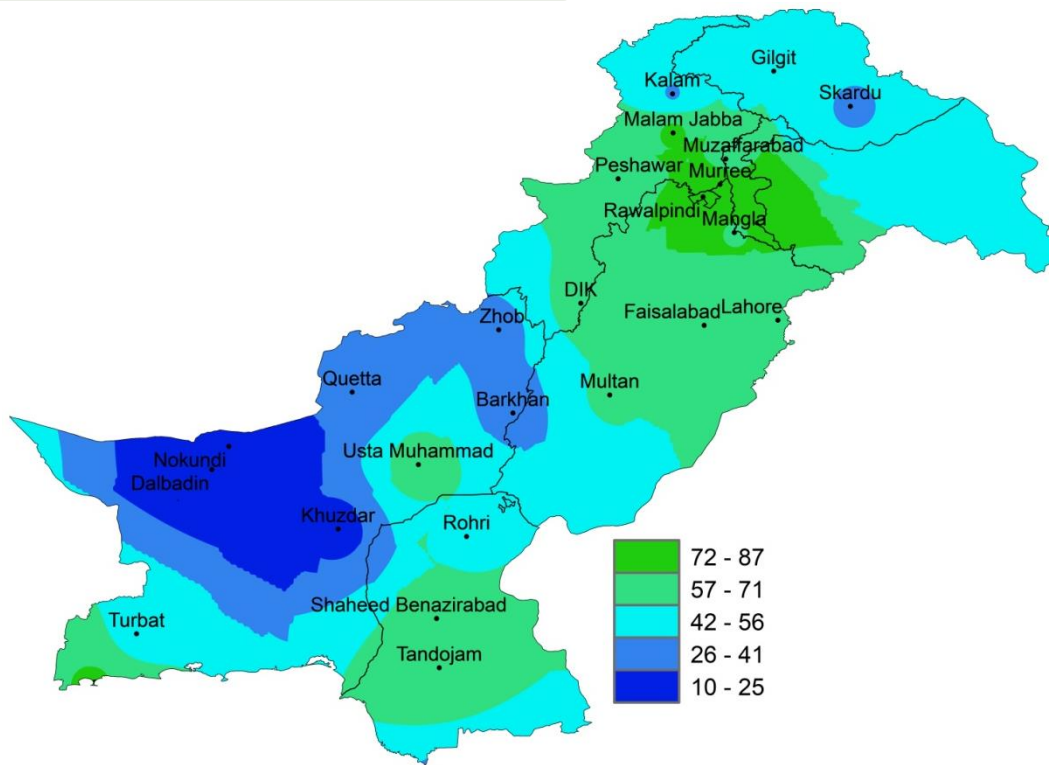
Normal & Departure of Maximum temperature (°C) for the previous week (23rd – 29th August, 2021)



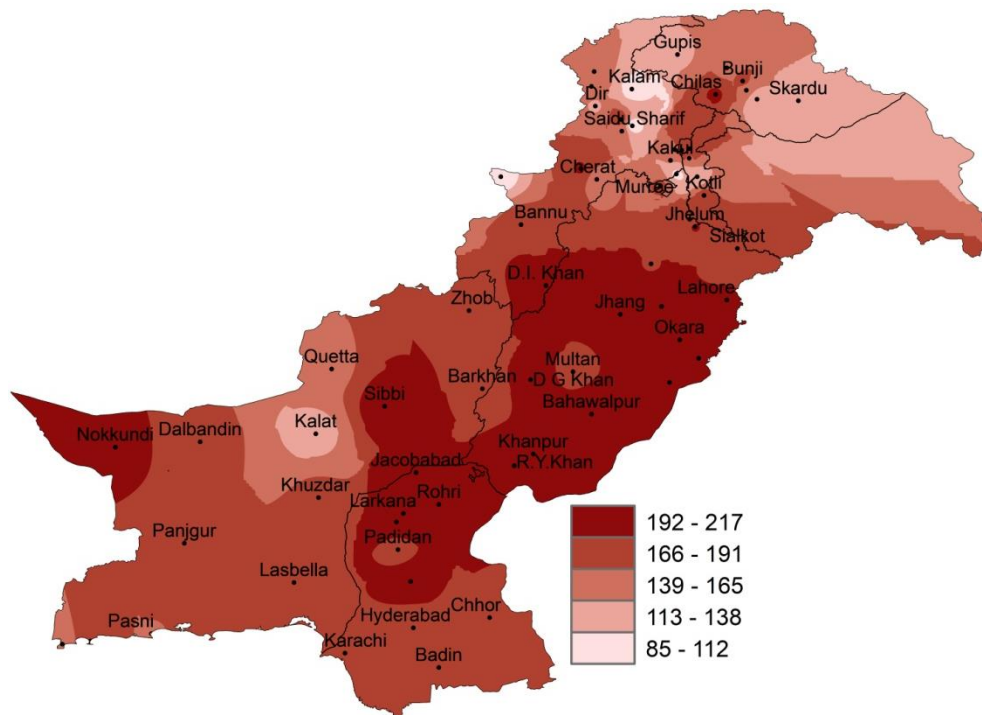
Normal & Departure of Mean temperature (°C) for the previous week (23rd – 29th August, 2021)



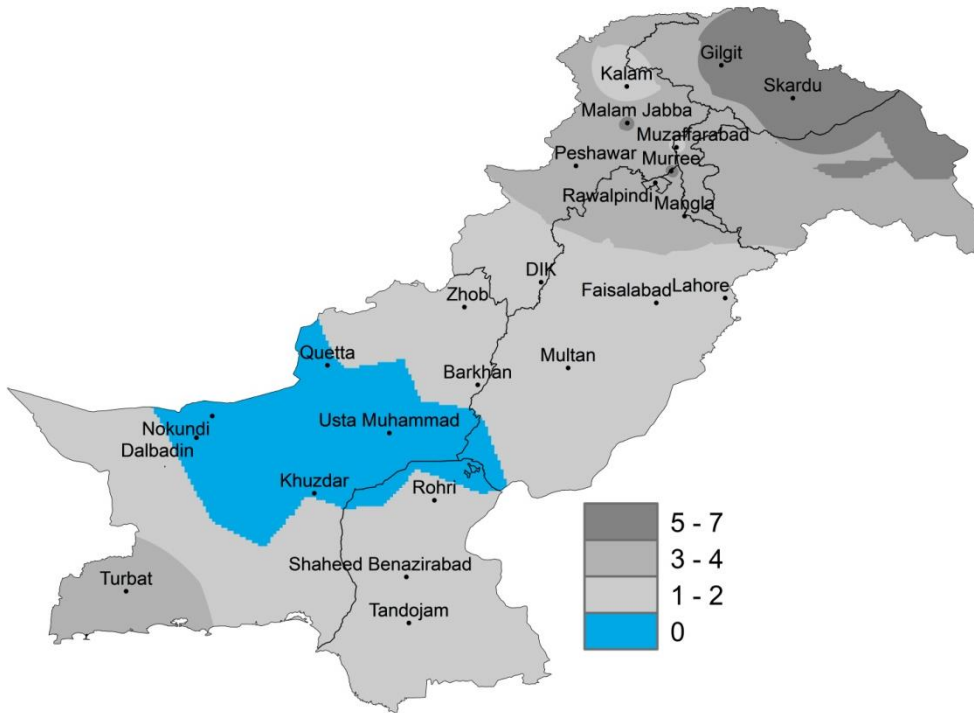
Mean Relative Humidity (%) during the previous week (23rd – 29th August, 2021)



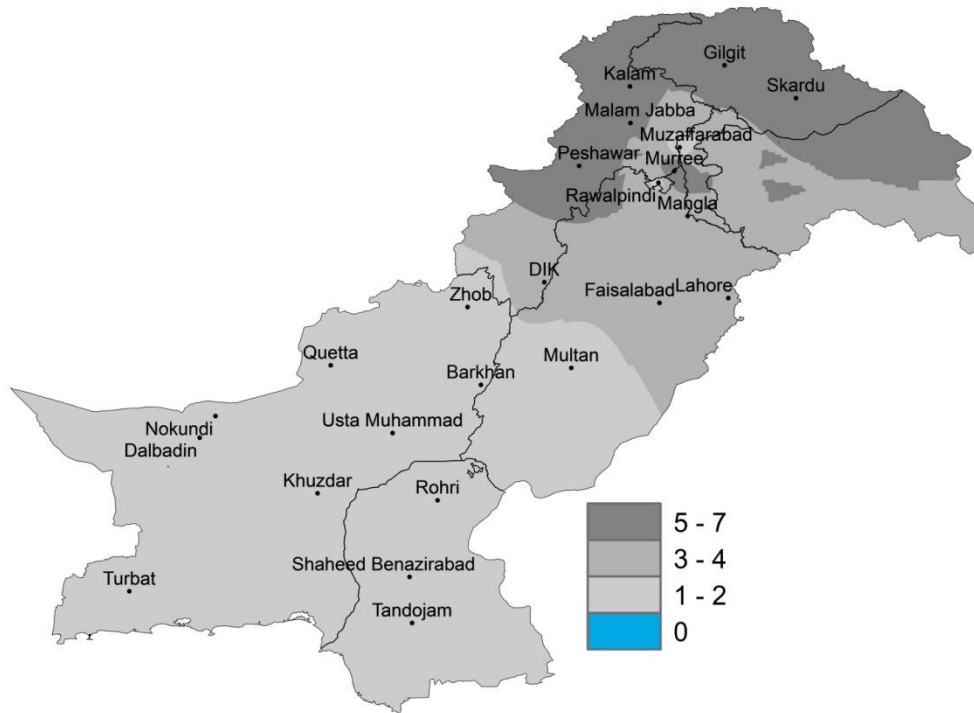
Total Growing Degree Days accumulated during the previous week (23rd – 29th August, 2021)



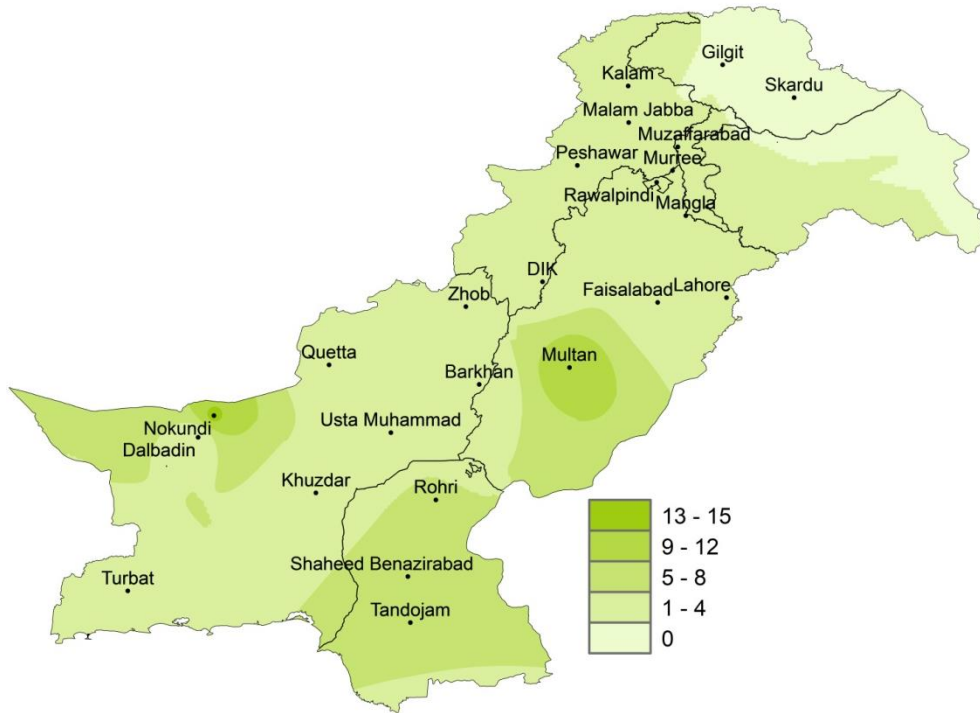
Mean Cloudiness (Oktas) at 0800PST during the previous week (23rd – 29th August, 2021)



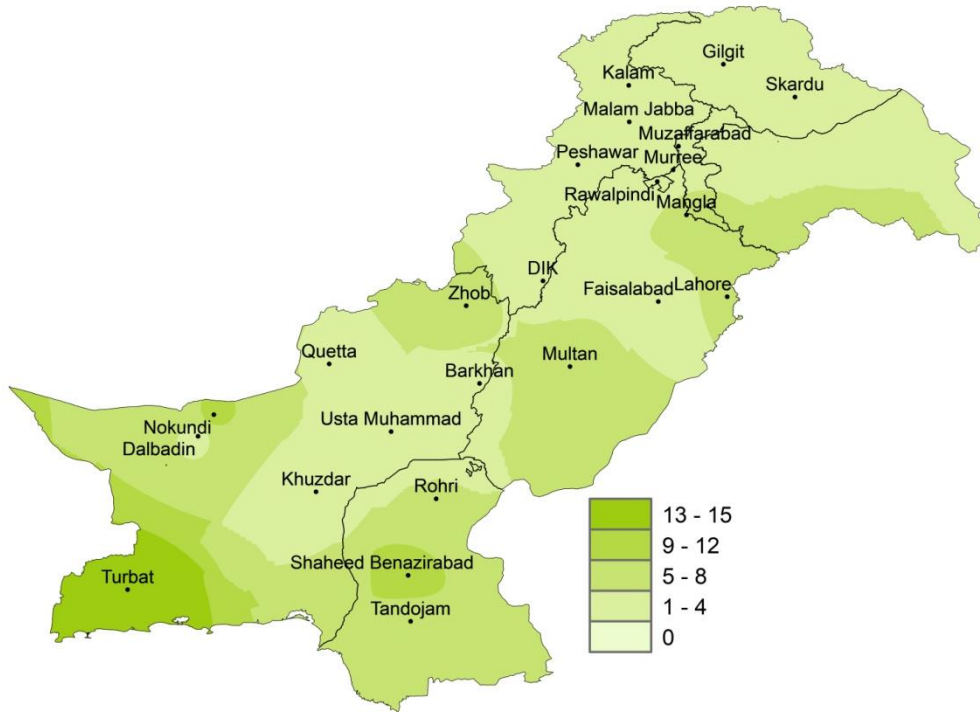
Mean Cloudiness (Oktas) at 1700PST during the previous week (23rd – 29th August, 2021)



Mean Wind Speed (Knots) at 0800PST during the previous week (23rd – 29th August, 2021)



Mean Wind Speed (Knots) at 1700PST during the previous week (23rd – 29th August, 2021)



Weekly Weather Advisory for Farmers
(30th August – 5th September, 2021)

Strong monsoon currents are penetrating upper parts of the country and likely to continue in upper and central parts during next few days. A westerly wave is also present over northwestern parts of the country.

MONDAY
30-08-2021

Hot and humid weather is likely to prevail over plain areas of the country. However, rain-wind-thundershower (with isolated heavy falls) is expected in Kashmir, Khyber Pakhtunkhwa, Islamabad, Punjab, Gilgit Baltistan & northeast Balochistan.

TUESDAY
31-08-2021

Rain-wind-thundershower (with isolated heavy falls) is expected in Kashmir, Khyber Pakhtunkhwa, Islamabad, Punjab, Gilgit Baltistan, northeast Balochistan and southeast Sindh. Hot and humid weather is likely to prevail elsewhere in the country.

WEDNESDAY
01-09-2021

Rain-wind-thundershower is expected in Gilgit Baltistan, Kashmir, Khyber Pakhtunkhwa, Punjab, Islamabad, eastern Balochistan and Sindh. Dry weather is expected elsewhere in the country.

THURSDAY
02-09-2021

Rain-wind-thundershower is expected in Sindh, upper and western parts of Khyber Pakhtunkhwa, South Punjab, Potohar region and eastern Balochistan. Isolated rain-wind-thundershower also expected in Kashmir and Gilgit-Baltistan. Dry weather is expected elsewhere in the country.

FRIDAY
03-09-2021.

Mainly hot and dry weather is expected in most parts of the country. However isolated rain-wind-thundershower is expected in south east Sindh,

Gilgit Baltistan, Kashmir, upper Khyber Pakhtunkhwa and Potohar region.

SATURDAY
04-09-2021

Mainly hot and dry weather is expected in most parts of the country. However isolated rain-wind-thundershower is expected in coastal areas of Sindh.

SUNDAY
05-09-2021

Mainly hot and dry weather is expected in most parts of the country. However isolated rain-wind-thundershower is expected in coastal areas of Sindh.

ADVISORY FOR FARMERS

During the last week, light to moderate rainfall reported from upper Punjab, upper Khyber Pakhtunkhwa and Kashmir. Light rainfall reported from 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 (23rd – 29th 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	36.7	38.5	181.5	36	6.0	0.0	0.6	0.0	2.6
Dalbandin	40.5	42.5	179.0	23	0.0	0.0	0.0	0.3	2.9
D.I. Khan	40.6	42.0	205.3	61	0.0	1.0	2.4	0.6	0.6
Faisalabad	38.6	40.0	194.9	58	0.0	1.3	2.7	1.7	1.0
Gawadar	32.7	34.0	171.8	73	0.0	2.9	1.4	0.6	13.1
Gilgit	33.9	37.2	148.1	55	0.4	4.4	5.4	0.0	0.9
Kalam	26.9	28.3	99.3	39	3.5	1.3	5.0	0.0	2.1
Khuzdar	37.0	38.5	173.2	21	0.0	0.0	0.7	0.0	0.9
Lahore	36.8	37.7	192.3	64	0.0	1.2	2.0	0.0	5.0
Malam Jabba	22.1	23.5	83.3	75	12.0	4.1	4.4	1.4	3.4
Mangla	36.4	37.7	187.3	70	1.6	2.9	3.3	0.9	7.4
Multan (PBO)	36.8	38.0	187.7	58	0.0	0.7	1.4	10.6	8.0
Murree	23.7	25.8	103.7	87	36.0	4.3	6.7	2.9	1.1
Muzaffarabad	36.5	38.4	172.3	63	17.0	2.0	1.0	0.0	0.0
Nokkundi	40.5	42.0	197.3	60	0.0	0.4	0.3	7.4	9.4
Nawabshah	40.3	42.0	199.5	10	0.0	0.0	0.0	12.9	9.4
Peshawar	38.4	40.4	195.0	63	0.0	3.6	6.1	0.6	2.6
Quetta	32.8	33.5	134.0	26	0.0	0.0	0.7	1.4	3.6
Rawalpindi	35.7	40.0	177.0	74	5.0	2.7	1.6	0.8	0.2
Rohri	40.7	42.5	203.8	53	0.0	0.0	0.0	4.3	4.0
Skardu	31.7	35.7	134.1	39	6.7	4.3	4.4	0.0	2.1
Tandojam	36.1	36.5	182.6	69	0.0	1.1	0.4	4.3	6.8
Turbat	40.6	43.0	198.8	52	0.0	2.6	0.6	1.6	14.7
Usta. M	38.6	40.0	194.0	64	0.0	0.0	0.0	1.4	1.7
Zhob	36.6	38.5	175.8	38	0.0	0.6	1.7	3.6	6.1

*** 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)