

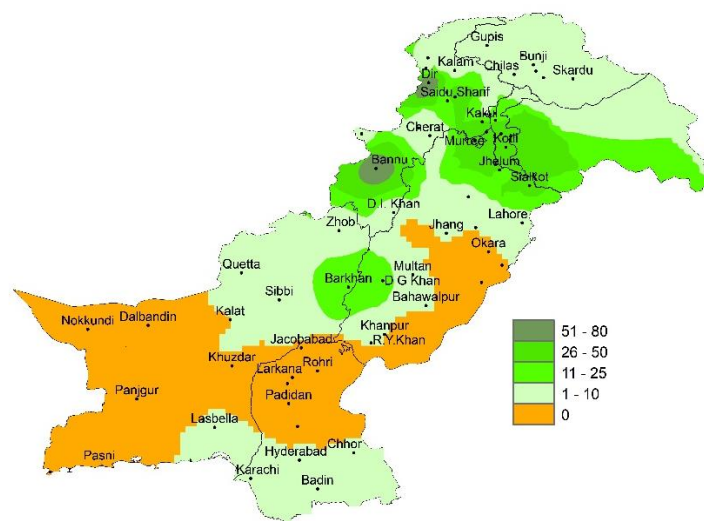
Weekly Weather and Crop Bulletin for Pakistan

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 (9th – 15th 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 (9th – 15th August, 2021)

Above normal day time temperatures were observed 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, 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 (9th – 15th August, 2021)**Punjab**

Light to moderate rainfall reported from upper Punjab during the week. Weekly maximum and minimum temperatures recorded as 36.5°C & 26.5°C respectively. For the recent week on average 185.4 growing degree days were accumulated. Average relative humidity recorded as 67% and wind speed in the morning/evening recorded as 5.4/4.0 Knots. During the previous week the highest precipitation was observed as 51.0 mm at Murree while the highest maximum temperature was recorded as 41.5°C at Bhakkar.

Baluchistan

Light rainfall reported from a single station in northeast Baluchistan during the week. Weekly maximum and minimum temperatures recorded as 37.0°C & 22.5°C respectively. For the recent week on average 178.5 growing degree days were accumulated. Average relative humidity recorded as 45% and wind speed in the morning/evening recorded as 1.0/6.8 Knots. During the previous week the highest precipitation was observed as 23.0 mm at Barkhan while the highest maximum temperature was recorded as 44.0°C at Nokkundi.

Khyber Pakhtunkhwa

Light to moderate rainfall reported from Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 33.5°C & 20.7°C respectively. For the recent week on average 155.0 growing degree days were accumulated. Average relative humidity recorded as 68% and wind speed in the morning/evening recorded as 0.6/2.4 Knots. During the previous week the highest precipitation was observed as 82.0 mm at Risalpur while the highest maximum temperature was recorded as 41.0°C at D.I.Khan.

Sindh

Dry weather reported from Sindh during the week. Weekly maximum and minimum temperatures recorded as 36.9°C & 26.2°C respectively. For the

recent week, on average 185.6 growing degree days were accumulated. Average relative humidity recorded as 62% and wind speed in the morning/evening recorded as 6.5/8.3 Knots. During the previous week the highest maximum temperature was recorded as 43.0°C at Dadu.

Gilgit-Baltistan and Azad Jammu & Kashmir

Light to moderate rainfall reported from Gilgit-Baltistan, Azad Jammu & Kashmir during the week. Weekly maximum and minimum temperatures recorded as 32.1°C & 18.6°C respectively. For the recent week on average 142.6 growing degree days were accumulated. Average relative humidity recorded as 54% and wind speed in the morning/evening recorded as 1.5/2.9 Knots. During the previous week the highest precipitation was observed as 52.0 mm at Rawalakot while the highest maximum temperature was recorded as 42.0°C at Garhi Dupatta.

Past Weather for Major Agricultural Plains**(9th – 15th August, 2021)****Rawalpindi (Potohar region)**

Rainfall reported as 26.6 mm from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 3.0/2.5 Oktas while, average relative humidity observed as 67%. Mean day time temperature recorded as 35.6°C & for the recent week 171.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.2/0.8 Knots.

Faisalabad (Central Punjab)

Dry weather reported from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 0.9/1.3 Oktas while, average relative humidity observed as 61%. Mean day time temperature recorded as 38.0°C & for the recent week 194.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.2/0.9 Knots.

Tandojam (Lower Sindh)

Dry weather reported from Tandojam during the week; however, cloudiness in the morning/evening recorded as 0.7/0.4 Oktas while, average relative humidity observed as 68%. Mean day time temperature recorded as 34.6°C & for the recent week 174.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 6.5/9.2 Knots.

Usta Muhammad (Eastern Baluchistan)

Dry weather reported from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded as 0.4/0.0 Oktas while, average relative humidity observed as 64%. Mean day time temperature recorded as 38.5°C & for the recent week 194.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.7/2.0 Knots.

Past Weather for Sub-Regional Agricultural Plains (9th – 15th August, 2021)**Multan**

Dry weather reported from Multan during the week; however, cloudiness in the morning/evening recorded as 1.1/0.6 Oktas while, average relative humidity observed as 59%. Mean day time temperature recorded as 36.3°C & for the recent week 189.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 12.3/8.9 Knots.

Lahore

Rainfall reported as 3.8 mm from Lahore during the week; cloudiness in the morning/evening recorded as 2.5/2.9 Oktas while, average relative humidity observed as 64%. Mean day time temperature recorded as 36.2°C & for the recent week 189.4 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.3/2.6 Knots.

Zhob

Dry weather reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 0.0/1.6 Oktas while, average relative humidity observed as 42%. Mean day time temperature recorded as 36.9°C & for the recent week 178.5 growing degree days accumulated. cloudiness in the morning/evening recorded as 3.0/8.1 Oktas.

Murree

Rainfall reported as 51.0 mm from Murree during the week; however, cloudiness in the morning/evening recorded as 3.9/5.9 Oktas while, average relative humidity observed as 79%. Mean day time temperature recorded as 23.9°C & for the recent week 103.6 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.7/0.6 Knots.

D.I. Khan

Dry weather reported from D.I. Khan during the week; however, cloudiness in the morning/evening recorded as 2.1/2.3 Oktas while, average relative humidity observed as 66%. Mean day time temperature recorded as 39.3°C & for the recent week 200.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.3/0.3 Knots.

Peshawar

Rainfall reported as 4.0 mm from Peshawar during the week; however, cloudiness in the morning/evening recorded as 2.7/3.0 Oktas while, average relative humidity observed as 65%. Mean day time temperature recorded as 36.9°C & for the recent week 184.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.7/2.9 Knots.

Kalam

Rainfall reported as 1.0 mm from Kalam during the week; however, cloudiness in the morning/evening recorded as 0.7/5.3 Oktas while, average relative humidity observed as 38%. Mean day time temperature recorded as 26.1°C & for the recent week 92.7 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/3.7 Knots.

Gilgit

Rainfall reported as 2.4 mm from Gilgit during the week. However, cloudiness in the morning/evening recorded as 3.7/4.7 Oktas while, average relative humidity observed as 45%. Mean day time temperature recorded as 33.7°C & for the recent week 145.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.9/2.3 Knots.

Skardu

Rainfall reported as 0.6 mm from Skardu during the week; however, cloudiness in the morning/evening recorded as 3.6/5.7 Oktas while, average relative humidity observed as 38%. Mean day time temperature recorded as 29.3°C & for the recent week 121.2 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.3/3.7 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)

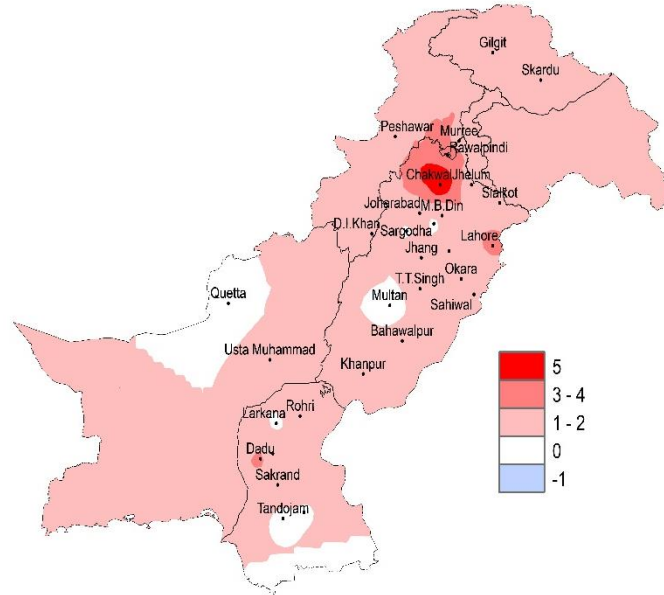
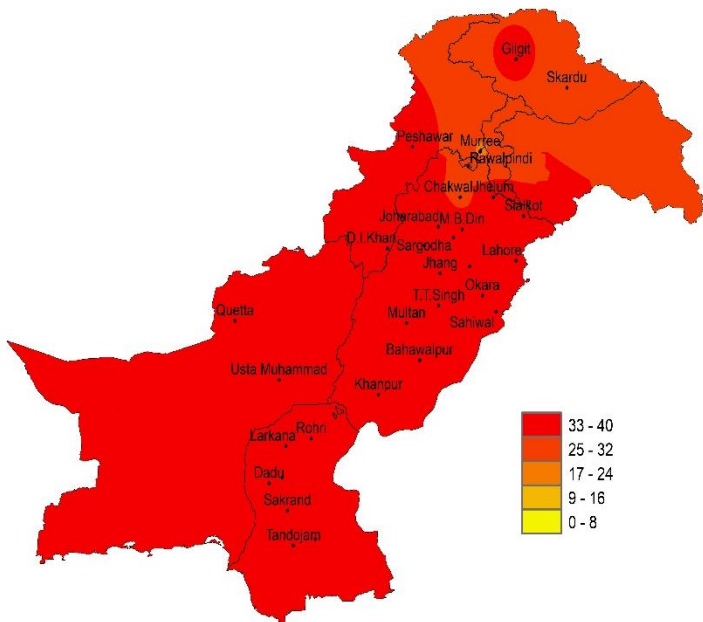
There is presently no crop grown in the fields of RAMC Quetta.

Eastern Baluchistan (Usta Muhammad)

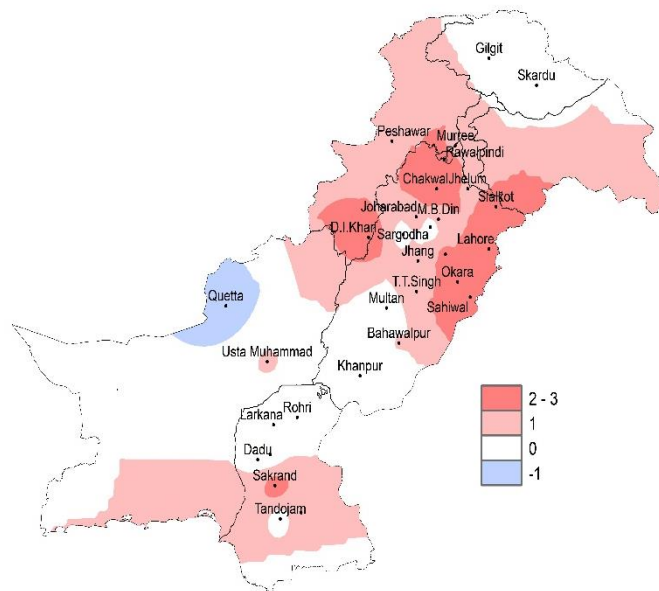
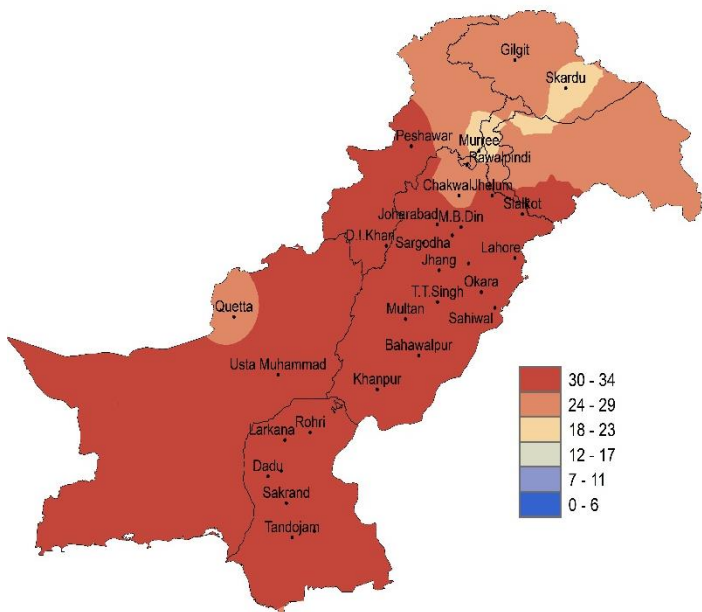
Presently Rice crop is sown in the fields of RAMC Usta Muhammad.

Rice: Good, Third Leaf Stage.

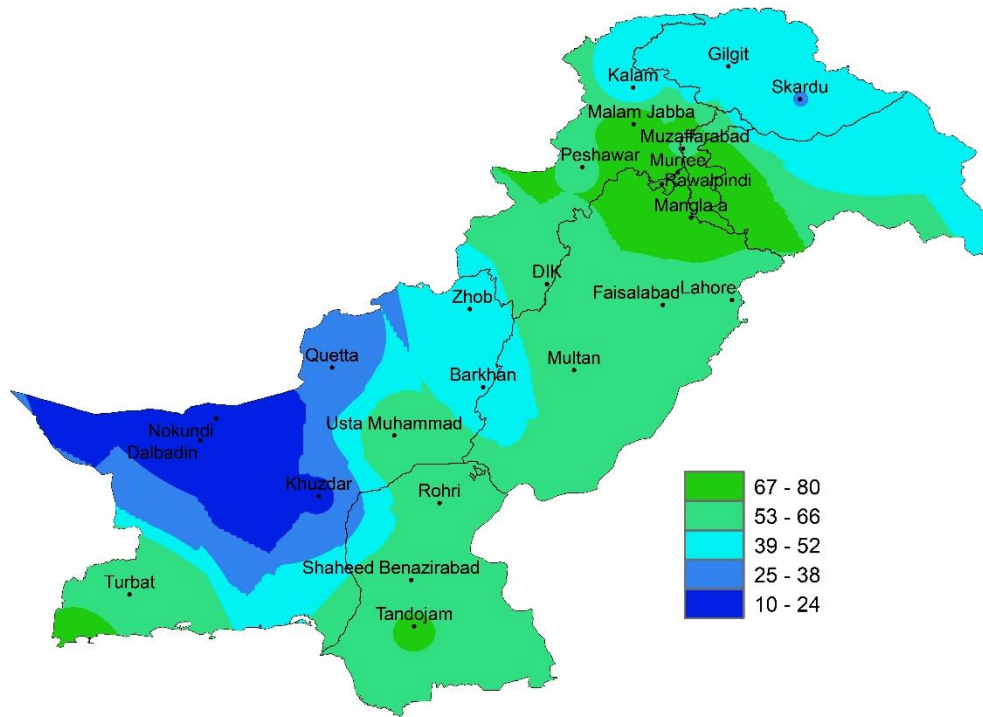
Normal & Departure of Maximum temperature (°C) for the previous week (9th – 15th August, 2021)



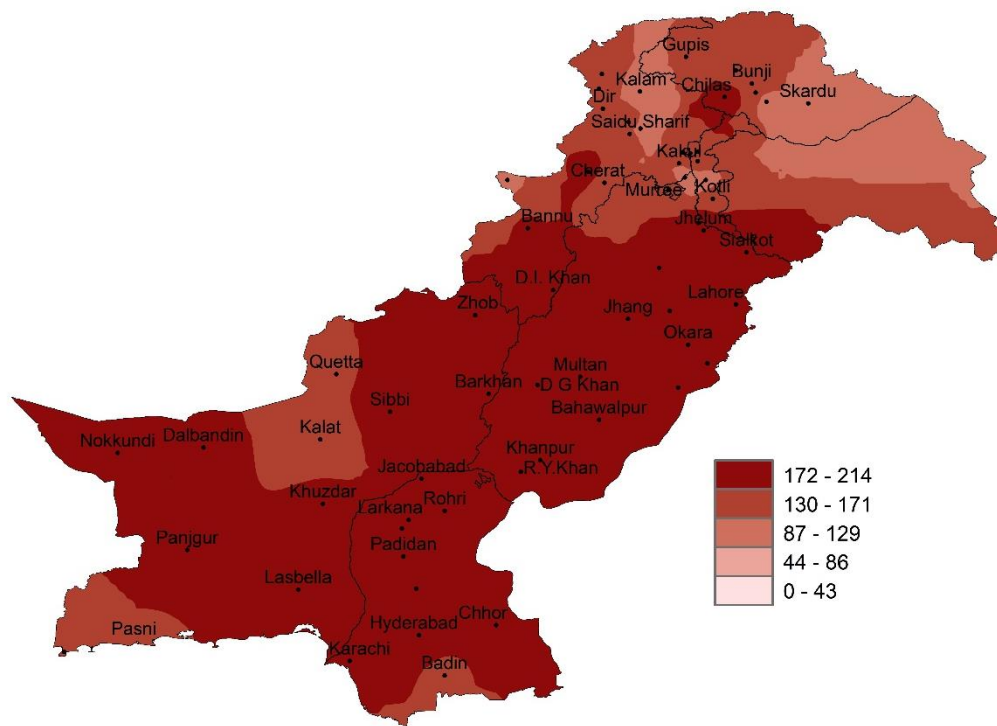
Normal & Departure of Mean temperature (°C) for the previous week (9th – 15th August, 2021)



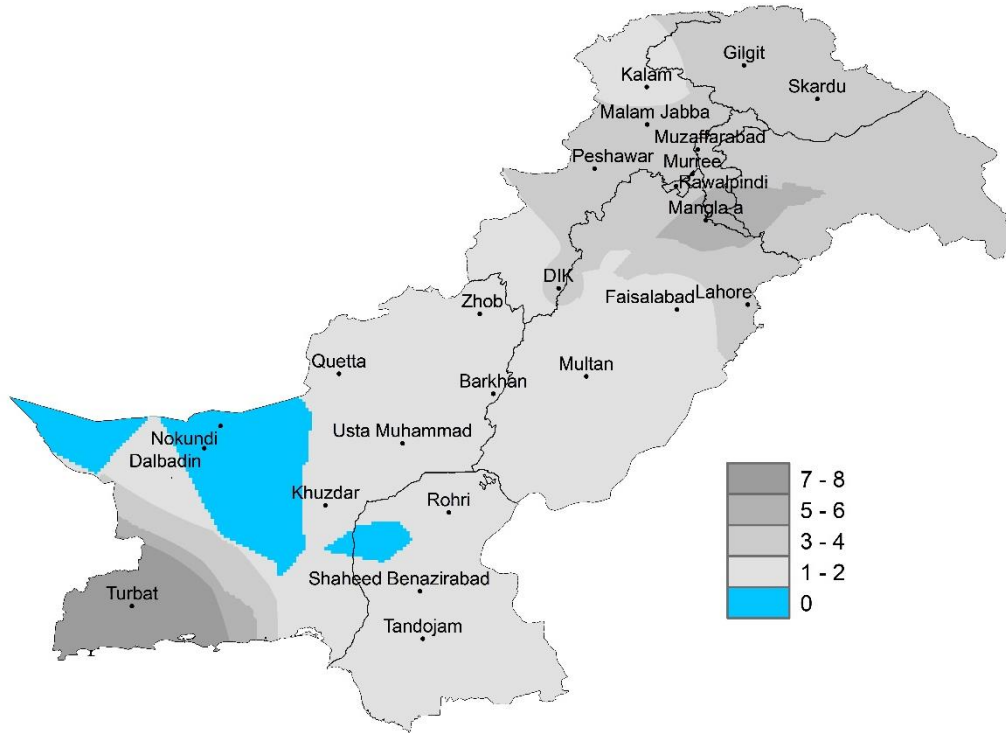
Mean Relative Humidity (%) during the previous week (9th – 15th August, 2021)



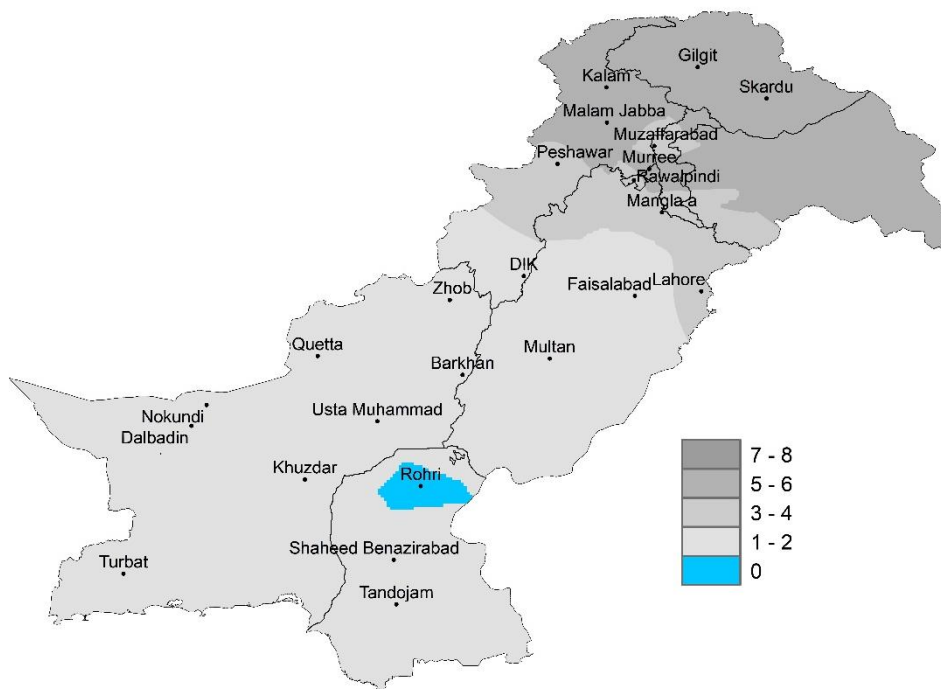
Total Growing Degree Days accumulated during the previous week (9th – 15th August, 2021)



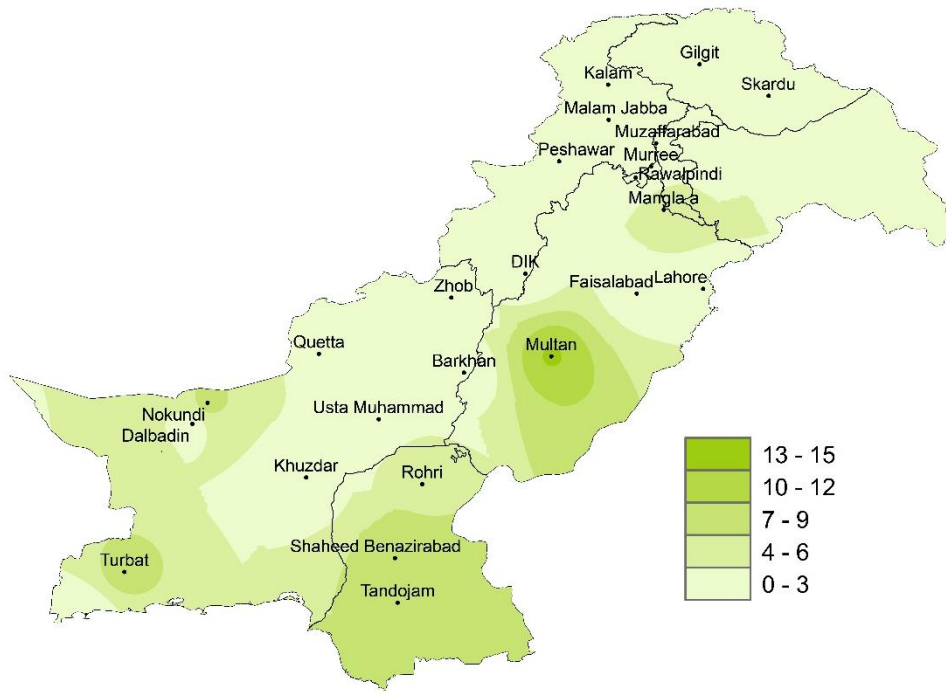
Mean Cloudiness (Oktas) at 0800PST during the previous week (9th – 15th August, 2021)



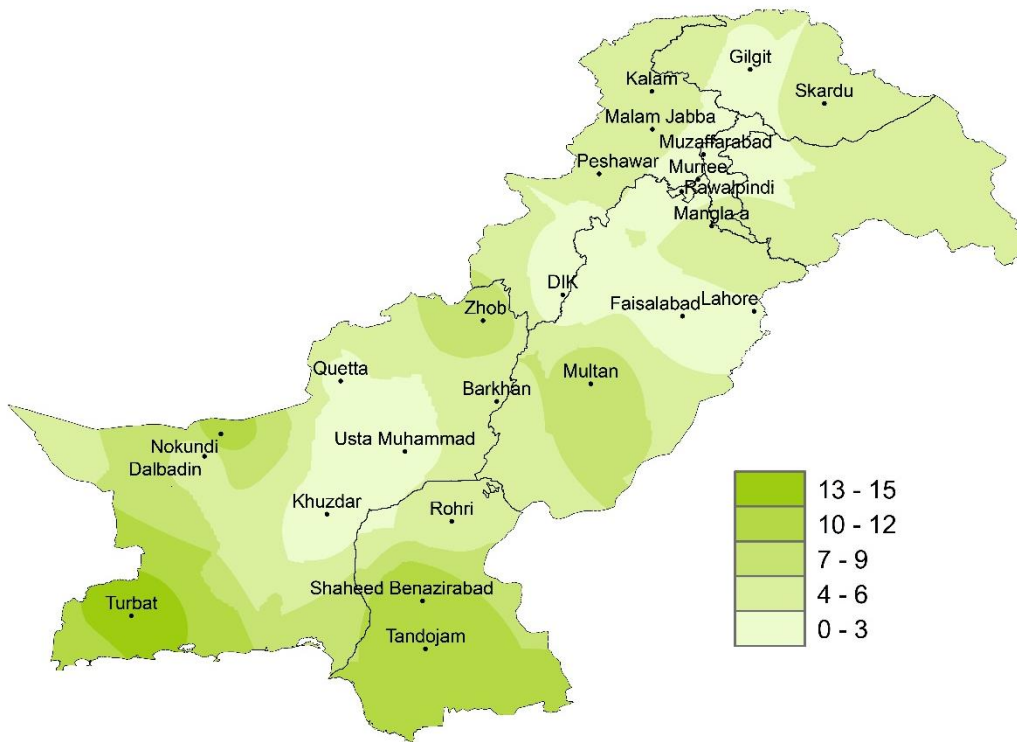
Mean Cloudiness (Oktas) at 1700PST during the previous week (9th – 15th August, 2021)



Mean Wind Speed (Knots) at 0800PST during the previous week (9th – 15th August, 2021)



Mean Wind Speed (Knots) at 1700PST during the previous week (9th – 15th August, 2021)



Weekly Weather Advisory for Farmers**(16th – 22nd August, 2021)**

Weak monsoon currents are penetrating central parts of the country.

MONDAY**16-08-2021**

Mainly hot and humid weather is expected in most plain areas of the country. However, rain-wind/thundershower is expected in central Punjab, northeast Balochistan, Khyber Pakhtunkhwa, Kashmir and Gilgit-Baltistan.

TUESDAY**17-08-2021**

Mainly hot and humid weather is expected in most plain areas of the country. However, rain-wind/thundershower is expected in upper Khyber Pakhtunkhwa and Gilgit-Baltistan.

WEDNESDAY**18-08-2021**

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

THURSDAY**19-08-2021**

Rain-wind/thundershower is expected in Kashmir, Islamabad, upper Punjab, upper Khyber Pakhtunkhwa and Gilgit-Baltistan. Isolated heavy falls are also expected during the period. Hot and humid weather is likely to prevail elsewhere in the country.

FRIDAY**20-08-2021.**

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

SATURDAY**21-08-2021**

Rain-wind/thundershower (with isolated heavy falls) is expected in north/southern Punjab, upper Khyber Pakhtunkhwa, northeast Balochistan, Kashmir and Gilgit-Baltistan. Hot and humid

weather is likely to prevail elsewhere in the country.

SUNDAY**22-08-2021**

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

ADVISORY FOR FARMERS

During the last week, light to moderate rainfall reported from Punjab, Khyber Pakhtunkhwa, 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.
- ❖ Pesticides may be applied to avoid any pest attack.

National Weather Data of Selected Cities from (9th – 15th August, 2021)

Stations	Maximum /Day Time Temperature (°C)		Growin g Degree Days	Relative Humidity (%)	Rainfall (mm)	Cloudiness (Oktas) 0800 PST	Cloudines s (Oktas) 1700 PST	Wind Speed (Knots) 0800 PST	Wind Speed (Knots) 1700 PST
	Mean	Maximum							
Barkhan	37.3	39.5	181.3	46	23.0	0.6	2.0	0.0	3.4
Dalbandin	42.4	43.5	188.5	23	0.0	0.0	0.0	1.7	3.4
D.I. Khan	39.3	41.0	200.3	66	0.0	2.1	2.3	0.3	0.3
Faisalabad	38.0	39.0	194.8	61	0.0	0.9	1.3	1.2	0.9
Gawadar	32.8	33.0	170.3	72	0.0	7.7	1.0	0.0	11.4
Gilgit	33.7	37.0	145.3	45	2.4	3.7	4.7	0.9	2.3
Kalam	26.1	27.5	92.7	38	1.0	0.7	5.3	0.0	3.7
Khuzdar	39.1	40.0	186.8	22	0.0	0.0	1.3	0.0	0.9
Lahore	36.2	37.2	189.4	64	3.8	2.5	2.9	2.3	2.6
Malam Jabba	22.1	23.0	84.5	80	45.0	3.1	5.7	0.3	5.1
Mangla	34.7	36.5	173.7	72	40.9	5.0	2.6	4.9	5.7
Multan (PBO)	36.3	37.0	189.3	59	0.0	1.1	0.6	12.3	8.9
Murree	23.9	24.6	103.6	79	51.0	3.9	5.9	1.7	0.6
Muzaffarabad	36.3	38.0	167.5	63	13.0	2.9	2.3	0.0	0.0
Nokkundi	39.8	41.0	196.1	59	0.0	0.0	0.0	7.4	11.4
Nawabshah	42.7	44.0	214.3	10	0.0	0.0	0.0	7.1	12.0
Peshawar	36.9	39.0	184.8	65	4.0	2.7	3.0	1.7	2.9
Quetta				26		0.0	1.3	2.3	2.4
Rawalpindi	35.6	37.0	171.3	67	26.6	3.0	2.5	1.2	0.5
Rohri	39.8	40.5	197.8	58	0.0	0.0	0.0	5.4	4.3
Skardu	29.3	33.7	121.2	38	0.6	3.6	5.7	0.3	3.7
Tandojam	34.6	35.0	174.8	68	0.0	0.7	0.4	6.5	9.2
Turbat	39.1	39.5	195.3	55	0.0	7.7	0.4	7.4	13.1
Usta. M	38.5	39.0	194.0	64	0.0	0.4	0.0	1.7	2.0
Zhob	36.9	39.0	178.5	42	0.0	0.0	1.6	3.0	8.1

*** 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)