

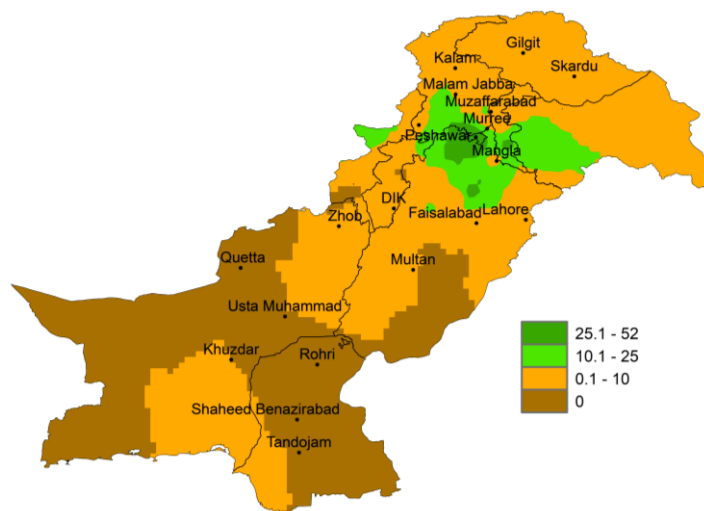
Weekly Weather and Crop Bulletin for Pakistan

**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 (19th August – 25th August,
2019)**



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Highlights of Past Weather (19th August – 25th August, 2019)

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

Province wise distribution of rainfall reported as follows during the last week:

1. Light to moderate rainfall observed in Punjab, Khyber Pakhtunkhwa and Gilgit Baltistan.
2. Light rainfall observed in Balochistan and Sindh.

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

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

Editor: Khalida Noreen (Meteorologist)

Past Weather of Provinces (19th August – 25th August, 2019)

Punjab

Light to moderate rainfall observed in Punjab during the week. Weekly maximum and minimum temperatures recorded as 36.9°C & 25.8°C respectively. For the recent week on average 184.6 growing degree days were accumulated. Average relative humidity recorded as 66% and wind speed in the morning/evening recorded as 3.0/4.3 Knots. During the previous week the highest precipitation was recorded as 63.6 mm at Lahore (AP) while maximum temperature was recorded as 42.5°C at Bhakkar.

Baluchistan

Light rainfall observed in Baluchistan during the week. Weekly maximum and minimum temperatures recorded as 36.3°C & 22.4°C respectively. For the recent week on average 167.7 growing degree days were accumulated. Average relative humidity recorded as 46% and wind speed in the morning/evening recorded as 1.4/5.8 Knots. During the previous week the highest precipitation was recorded as 9.0 mm at Barkhan while maximum temperature was recorded as 44.0°C at Sibbi.

Khyber Pakhtunkhwa

Light to moderate rainfall observed in Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 33.0°C & 19.3°C respectively. For the recent week on average 155.4 growing degree days were accumulated. Average relative humidity recorded as 66% and wind speed in the morning/evening recorded as 0.9/1.7 Knots. During the previous week the highest precipitation recorded as 25.0 mm at Parachinar while maximum temperature was recorded as 40.5°C at D.I. Khan.

Gilgit-Baltistan and Azad Jammu & Kashmir

Light to moderate rainfall observed in Gilgit-Baltistan & Kashmir during the week. Weekly

maximum and minimum temperatures recorded as 31.6°C & 17.0°C respectively. For the recent week on average 138.5 growing degree days were accumulated. Average relative humidity recorded as 57% and wind speed in the morning/evening recorded as 0.7/1.9 Knots. During the previous week the highest precipitation recorded as 30.0 mm at Kotli while maximum temperature was recorded as 39.5°C at Chilas.

Sindh

Light rainfall observed in Sindh during the week. Weekly maximum and minimum temperatures recorded as 37.3°C & 26.4°C respectively. For the recent week, on average 189.8 growing degree days were accumulated. Average relative humidity recorded as 63% and wind speed in the morning/evening recorded as 5.9/5.7 Knots. During the previous week the highest precipitation recorded as 0.02 mm at Karachi while maximum temperature was recorded as 41.7°C at Dadu.

Past Weather for Major Agricultural Plains **(19th August – 25th August, 2019)**

Rawalpindi (Potohar region)

32.0 mm rainfall was reported from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 0.4/1.1 Oktas while, average relative humidity observed as 66%. Mean day time temperature recorded 35.9°C & for the recent week 177.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.9/0.9 Knots.

Faisalabad (Central Punjab)

12.6 mm rainfall was reported from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 0.9/4.3 Oktas while, average relative humidity observed as 60%. Mean day time temperature recorded as 38.2°C & for the recent week 198.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.8/1.1 Knots.

Tandojam (Lower Sindh)

Dry weather reported from Tandojam during the week; however, clear sky observed during morning/evening while, average relative humidity observed as 72%. Mean day time temperature recorded as 35.5°C & for the recent week 181.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 4.2/4.6 Knots.

Usta Muhammad (Eastern Baluchistan)

Dry weather reported from Tandojam during the week; however, clear sky observed during morning/evening while, average relative humidity observed as 65%. Mean day time temperature recorded as 38.4°C & for the recent week 177.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.1/1.4 Knots.

Quetta (Northern Baluchistan)

Dry weather reported from Quetta during the week; however, cloudiness in the morning/evening recorded as 0.3/0.7 Oktas while, average relative humidity observed as 27%. Mean day time temperature recorded as 33.0°C & for the recent week 158.9 growing degree days accumulated. Wind speed recorded in the morning/evening as 3.0/3.6 Knots.

Past Weather for Sub-Regional Agricultural Plains (19th August – 25th August, 2019)

Multan

Dry weather reported from Multan during the week; however, cloudiness in the morning/evening recorded as 0.4/1.4 Oktas while, average relative humidity observed as 57%. Mean day time temperature recorded as 37.9°C & for the recent week 194.1 growing degree days accumulated. Wind speed recorded in the morning/evening as 6.3/8.6 Knots.

Lahore

1.11 mm rainfall was reported from Lahore during the week; however, cloudiness in the morning/evening recorded as 0.7/3.7 Oktas while, average relative humidity observed as 66%. Mean day time temperature recorded as 36.2°C & for the recent week 186.9 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.9/2.3 Knots.

Zhob

Dry weather reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 0.3/1.0 Oktas while, average relative humidity observed as 44%. Mean day time temperature recorded as 35.7°C & for the recent week 170.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 4.3/4.3 Knots.

Murree

11.00 mm rainfall was reported from Murree during the week; however, cloudiness in the morning/evening recorded as 1.4/4.2 Oktas while, average relative humidity observed as 74%. Mean day time temperature recorded as 23.7°C & for the recent week 106.4 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.7/2.0 Knots.

D.I. Khan

Dry weather reported from D.I. Khan during the week; however, cloudiness in the morning/evening recorded as 0.6/0.0 Oktas while, average relative humidity observed as 66%. Mean day time temperature recorded as 38.9°C & for the recent week 188.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.3/0.3 Knots.

Peshawar

0.01 mm rainfall reported from Peshawar during the week; however, cloudiness in the morning/evening recorded as 1.1/3.3 Oktas while, average relative humidity observed as 65%. Mean day time temperature recorded as 36.4°C & for the recent week 181.9 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.9/2.0 Knots.

Kalam

9.00 mm rainfall reported from Kalam during the week; however, cloudiness in the morning/evening recorded as 0.0/5.3 Oktas while, average relative humidity observed as 60%. Mean day time temperature recorded as 25.0°C & for the recent 115.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/1.1 Knots.

Gilgit

2.61 mm rainfall was reported from Gilgit during the week. However, cloudiness in the morning/evening recorded as 2.9/3.6 Oktas while, average relative humidity observed as 52%. Mean day time temperature recorded as 32.6°C & for the recent week 135.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.6/1.1 Knots.

Skardu

0.01 mm rainfall reported from Skardu during the week; however, cloudiness in the morning/evening recorded as 3.9/4.7 Oktas while, average relative humidity observed as 48%. Mean day time temperature recorded as 27.4°C & for the recent week 135.7 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.3/1.0 Knots.

**Crop Situation for Major Agricultural Plains
(Based on data from Regional Agro met 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, Boll Opening Stage*

Lower Sindh (Tandojam)

Presently cotton crop is sown in the fields of RAMC Tandojam.

Cotton: *Good, Boll Opening Stage*

Northern Baluchistan (Quetta)

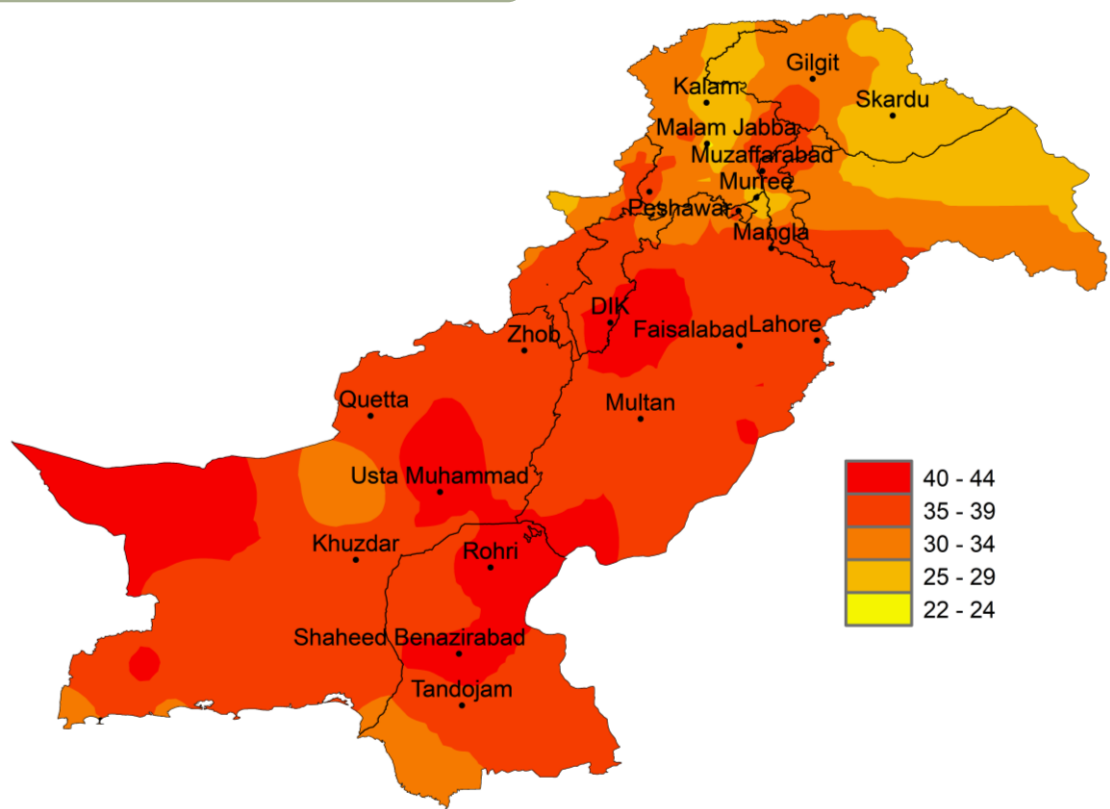
There is presently no crop grown in the fields of RAMC Quetta.

Eastern Baluchistan (Usta Muhammad)

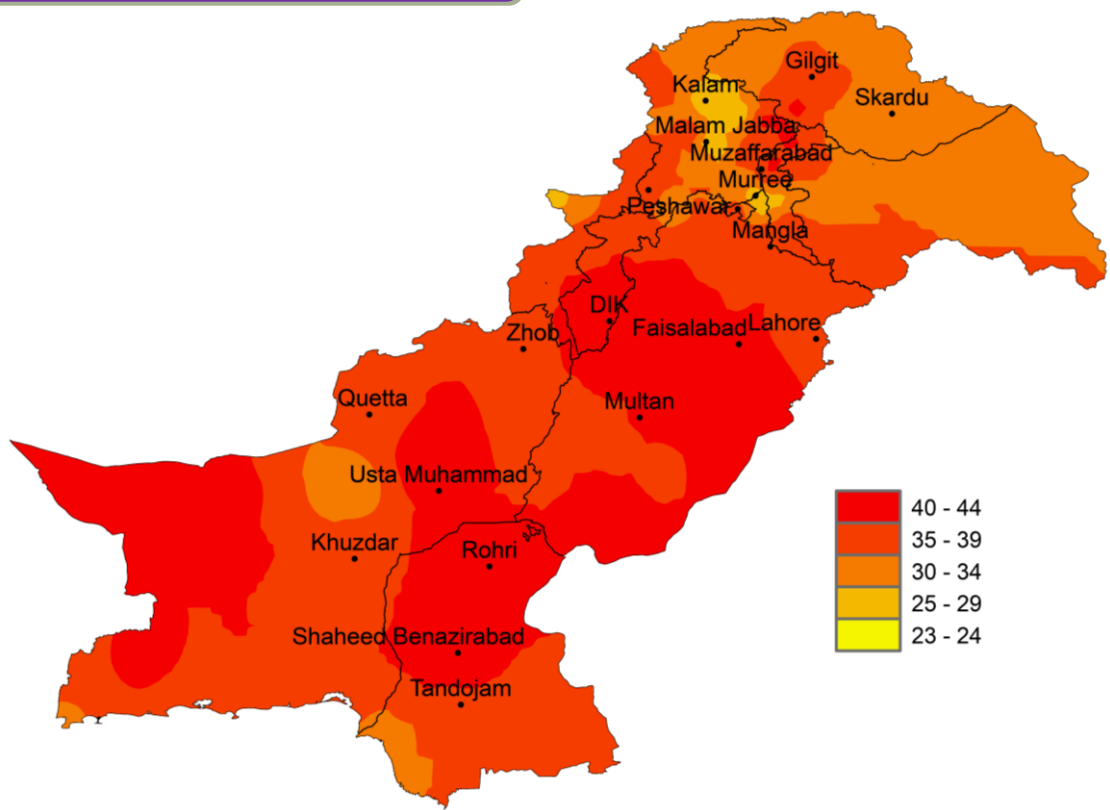
Presently rice crop is sown in the fields of RAMC Usta Muhammad.

Rice: *Good, Third Leaf stage.*

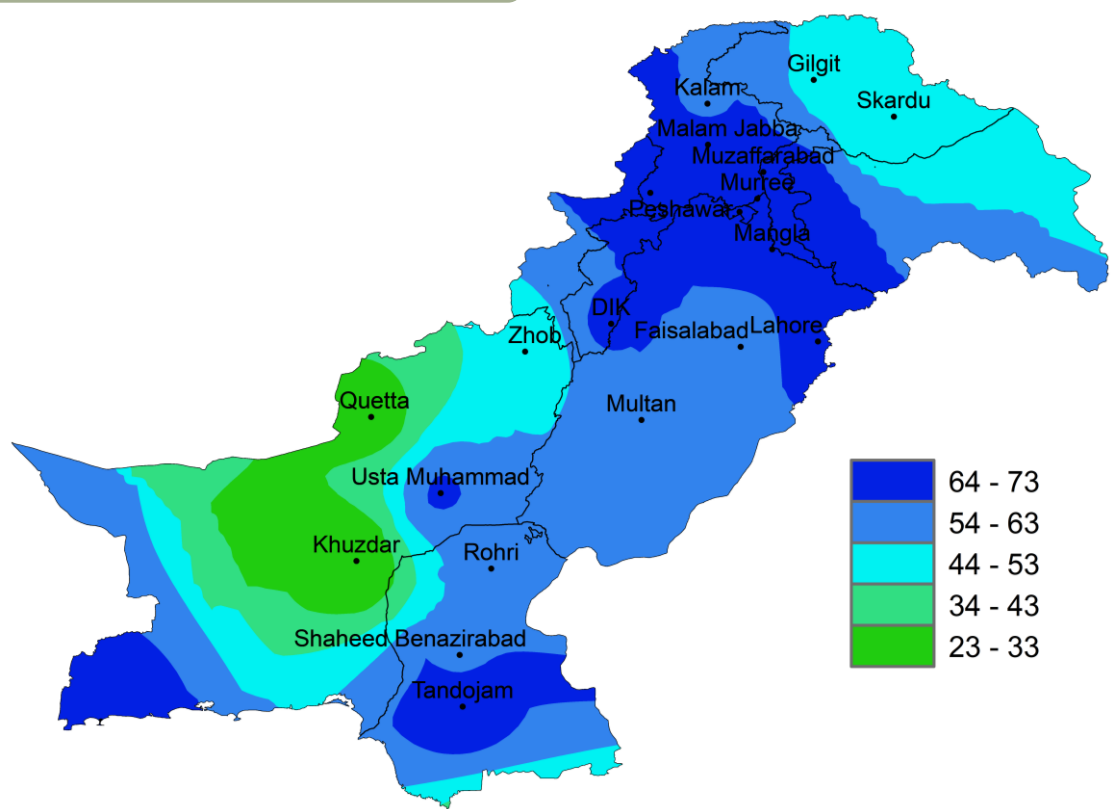
Mean Maximum temperature (°C) during the Previous week (19th August-25th August, 2019)



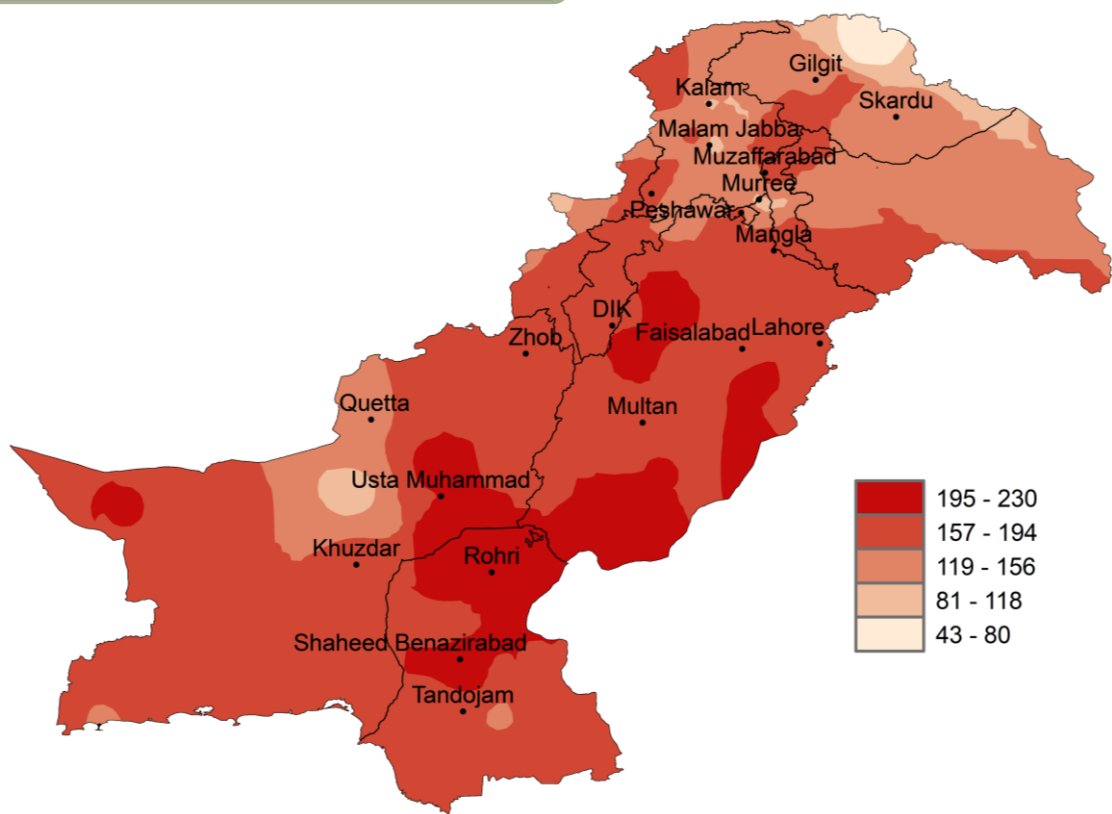
Highest Maximum Temperature (°C) during the Previous week (19th August-25th August, 2019)



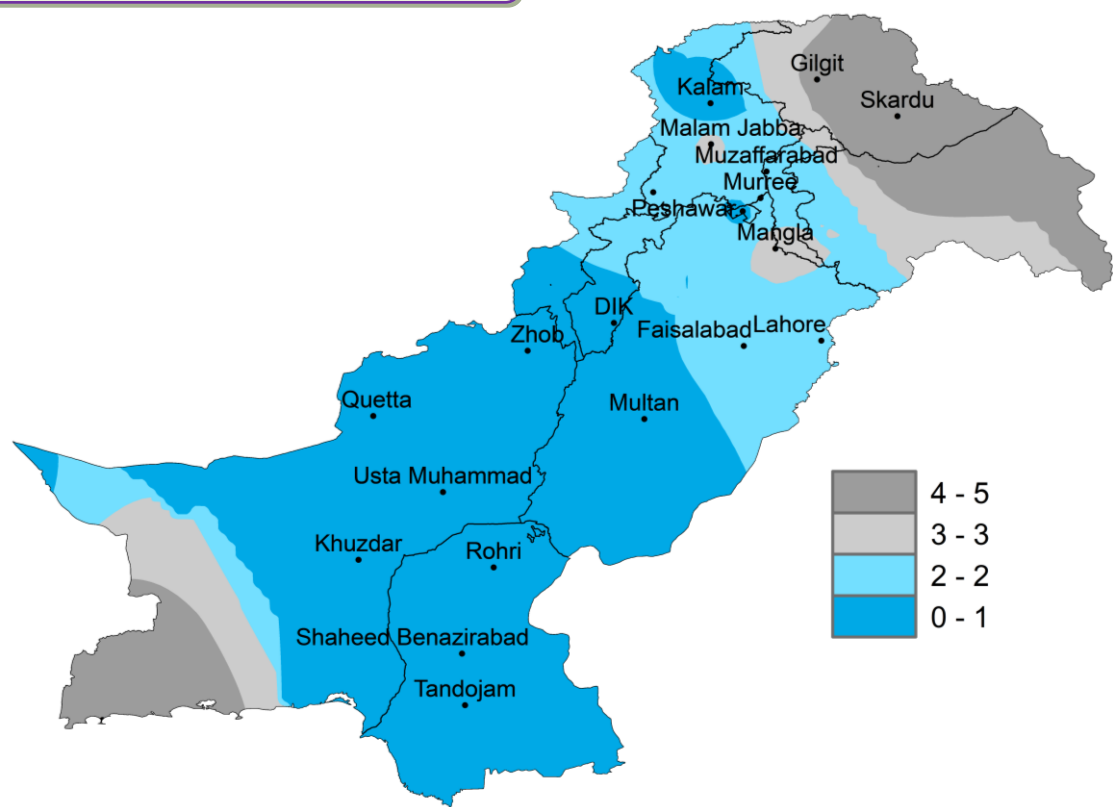
Mean Relative Humidity (%) during the Previous week (19th August-25th August, 2019)



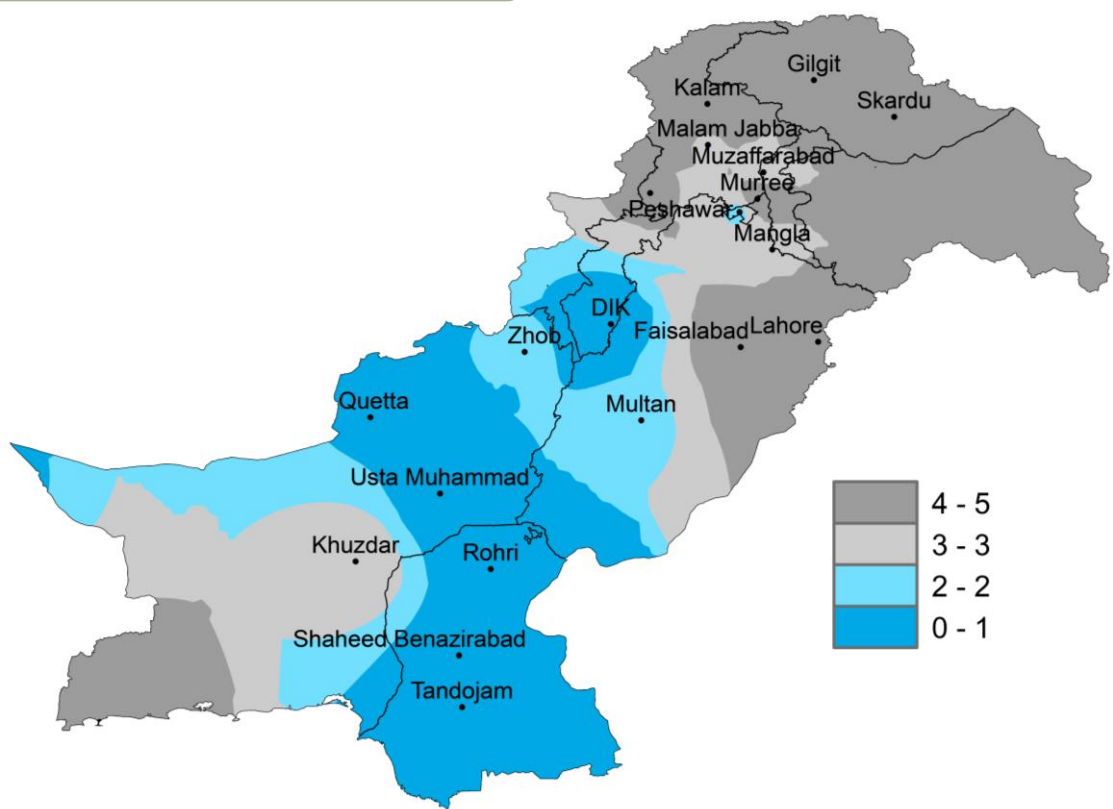
Total Growing Degree Days accumulated during the Previous week (19th August-25th August, 2019)



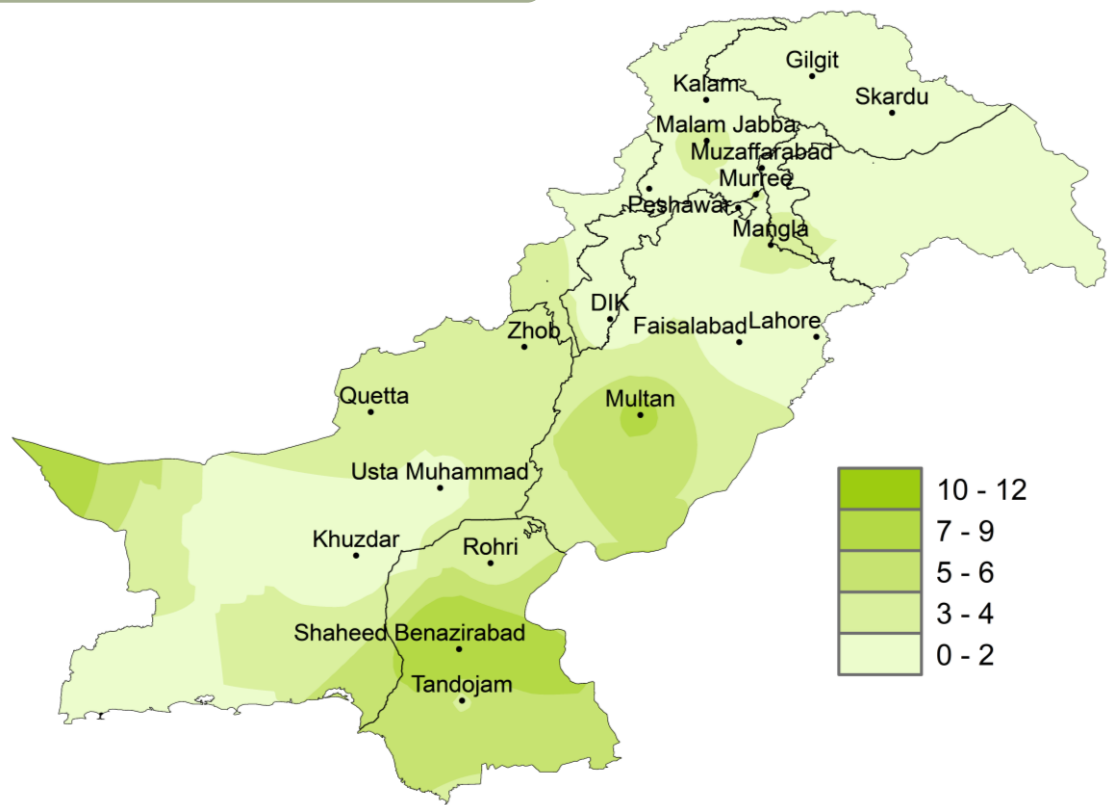
Mean Cloudiness (Oktas) at 0800PST during the Previous week (19th August-25th August, 2019)



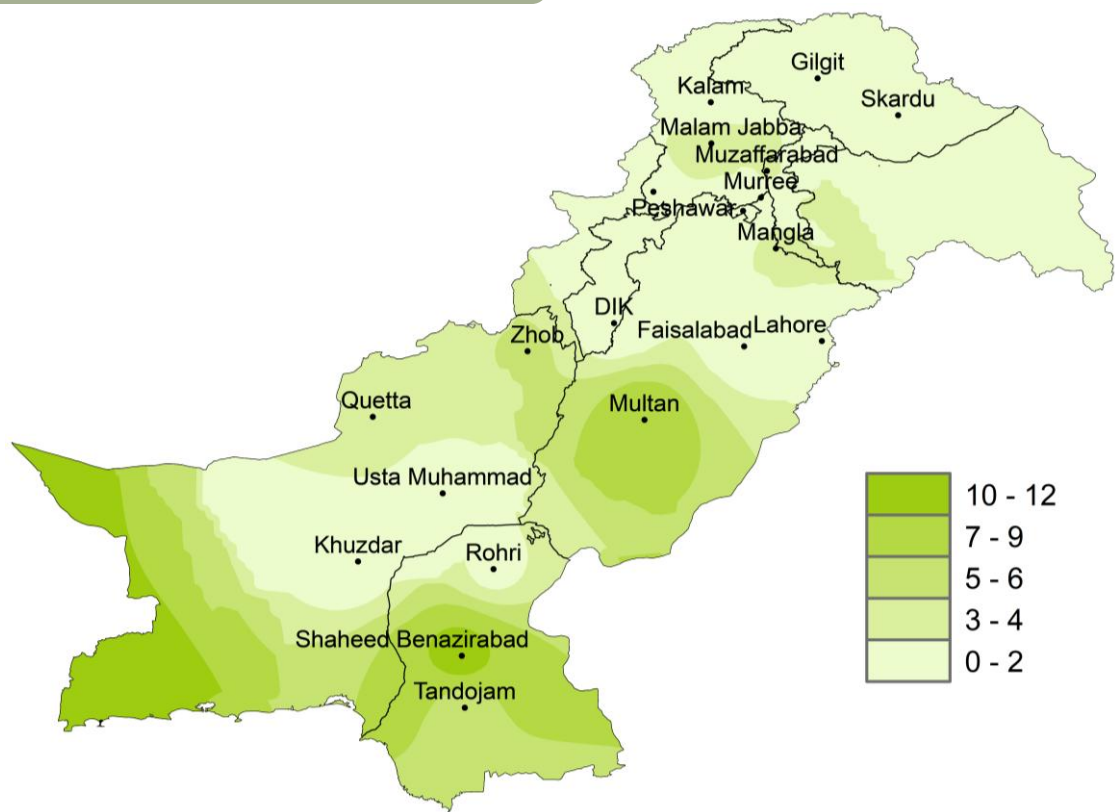
Mean Cloudiness (Oktas) at 1700PST during the Previous week (19th August-25th August, 2019)



Mean Wind Speed (Knots) at 0800PST during the Previous week (19th August-25th August, 2019)



Mean Wind Speed (Knots) at 1700PST during the Previous week (19th August-25th August, 2019)



Weekly Weather Advisory for Farmers
(26th August to 1st September, 2019)

Seasonal low lies over north Balochistan and its adjoining areas. A monsoon low over Northwest Orrisa has moved West-Northwestwards and today lies over Central parts of Madhya Pradesh and likely to reach north Rajasthan on Tuesday.

MONDAY**26-08-2019**

Rain/wind-thunderstorm (with isolated heavy falls) is expected at scattered places in Hazara, Rawalpindi, Gujranwala, Sargodha, Lahore, Faisalabad divisions, Islamabad and Kashmir, while at isolated places in Malakand, Peshawar, Kohat, Bahawalpur divisions and Gilgit Baltistan. Hot and humid weather is expected elsewhere in the country.

TUESDAY**27-08-2019**

Rain/wind-thunderstorm is expected at scattered places in Gujranwala, Lahore, Bahawalpur, Multan, D.G Khan divisions and Kashmir, while at isolated places in Malakand, Hazara, Rawalpindi, Faisalabad, Sargodha, Sahiwal, Mirpurkhas divisions and Islamabad. Hot and humid weather is expected elsewhere in the country.

WEDNESDAY**28-08-2019**

Scattered rains/wind-thunderstorm (with few moderate to heavy falls) is expected in Mirpurkhas, Thatta, Hyderabad, Karachi, Shaheed Benazirabad divisions, while at isolated places in Kalat, Bahawalpur, D G Khan, Naseerabad, Sibbi, Zhob, D.I khan divisions Kashmir and Gilgit Baltistan.

THURSDAY**29-08-2019**

Scattered rains/wind-thunderstorm (with few moderate to heavy falls) is expected in Mirpurkhas, Thatta, Hyderabad, Karachi, Shaheed Benazirabad divisions, while at isolated places in Kalat, Bahawalpur, D G Khan, Naseerabad, Sibbi, Zhob, D.I khan divisions Kashmir and Gilgit Baltistan.

FRIDAY**30-08-2019**

Mainly hot and humid weather is expected in most parts of the country. However, isolated rain/wind-

thunderstorm is expected in Lahore, Gujranwala divisions and Kashmir.

SATURDAY**31-08-2019**

Mainly hot and humid weather is expected in most parts of the country. However, isolated rain/wind-thunderstorm is expected in Lahore, Gujranwala divisions and Kashmir.

SUNDAY**01-09-2019**

Mainly hot and humid weather is expected in most parts of the country. However, isolated rain/wind-thunderstorm is expected in Lahore, Gujranwala divisions and Kashmir.

ADVISORY FOR FARMERS

During the last week, light rainfall occurred at scattered places in Punjab, GB and KPK, while dry weather prevailed over Sindh and Balochistan. Keeping in view the above expected weather conditions following advisories are suggested for farming community.

1. Use pesticides to avoid the attack from pests on the crops as advised by the agriculture department.
2. Use proper precautions during picking of cotton because the cost of good and clean quality cotton is high than that of the filthy one.

National Weather Data of Selected Cities from (26th August to 1st September, 2019)

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	Highest							
D.I. Khan	38.9	40.5	188.8	66	0.00	0.6	0.0	0.3	0.3
Faisalabad	38.2	39.2	198.0	60	12.60	0.9	4.3	0.8	1.1
Gawadar	34.0	34.0	146.8	71	0.00	5.4	3.9	0.0	12.0
Gilgit	32.6	35.5	135.3	52	2.61	2.9	3.6	0.6	1.1
Kalam	25.0	26.3	115.8	60	9.00	0.0	5.3	0.0	1.1
Khuzdar	36.4	37.0	172.5	23	0.00	0.0	2.6	0.0	1.1
Lahore	36.2	37.2	186.9	66	1.11	0.7	3.7	0.9	2.3
Malam Jabba	21.9	23.5	95.8	72	4.00	1.7	2.4	2.3	3.4
Mangla	36.5	38.2	179.3	65	3.40	1.9	2.6	1.7	2.9
Multan (PBO)	37.9	39.1	194.1	57	0.00	0.4	1.4	6.3	8.6
Murree	23.7	24.6	106.4	74	11.00	1.4	4.2	1.7	2.0
Muzaffarabad	36.7	38.5	167.4	64	5.00	0.9	2.3	0.3	2.6
Nawabshah	39.6	41.5	196.6	61	0.00	0.0	0.3	9.4	10.9
Peshawar	36.4	38.0	181.9	65	0.01	1.1	3.3	0.9	2.0
Quetta	38.4	39.0	177.8	27	0.00	0.3	0.7	3.0	3.6
Rawalpindi	35.9	36.6	177.8	66	32.00	0.4	1.1	0.9	0.9
Rohri	39.7	41.5	243.0	57	0.00	0.0	0.0	4.0	1.7
Skardu	27.4	31.8	135.7	48	0.01	3.9	4.7	0.3	1.0
Tandojam	35.5	36.0	181.5	72	0.00	0.0	0.0	4.2	4.6
Usta. M	38.4	39.0	177.8	65	0.00	0.0	0.0	1.1	1.4
Zhob	35.7	37.0	170.5	44	0.00	0.3	1.0	4.3	4.3

*** 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 سدّ باب (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)