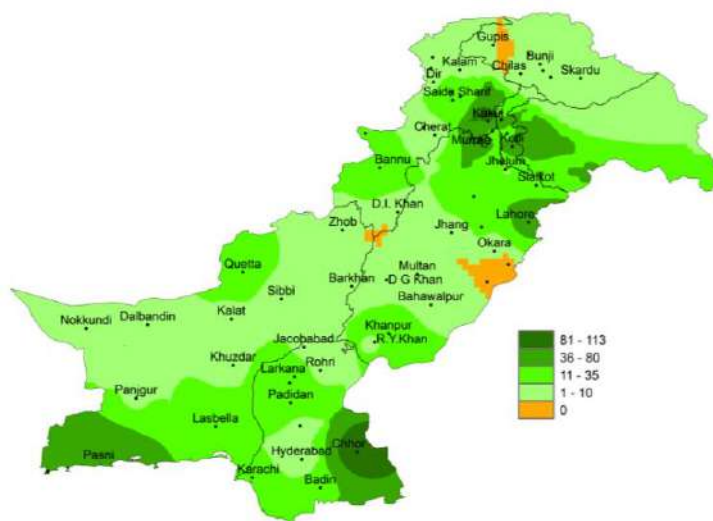


Weekly Weather and Crop Bulletin for Pakistan

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PAKISTAN METEOROLOGICAL
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Rainfall Distribution (mm) during the Previous Week (27th September – 3rd October, 2021)

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Highlights of Past Weather (27th September 3rd October, 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. Moderate to heavy rainfall reported from Khyber Pakhtunkhwa and Sindh.
2. Light to moderate rainfall reported from Punjab, Baluchistan, Kashmir and Gilgit-Baltistan.

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

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

Editor: Ruqiya Mehmood (Assistant Meteorologist)

Past Weather of Provinces (27th September – 3rd October, 2021)**Punjab**

Light to moderate rainfall reported from Punjab during the week. Weekly maximum and minimum temperatures recorded as 35.2°C & 25.0°C respectively. For the recent week on average 175.8 growing degree days were accumulated. Average relative humidity recorded as 73% and wind speed in the morning/evening recorded as 1.0/2.7 Knots. During the previous week the highest precipitation was observed as 80.00 mm at Lahore while the highest maximum temperature was recorded as 39.0°C at Bahawalnagar.

Baluchistan

Light to moderate rainfall reported from a single station in northeast Baluchistan during the week. Weekly maximum and minimum temperatures recorded as 34.1°C & 21.0°C respectively. For the recent week on average 161.0 growing degree days were accumulated. Average relative humidity recorded as 47% and wind speed in the morning/evening recorded as 0.9/7.1 Knots. During the previous week the highest precipitation was observed as 78.0 mm at Jiwani while the highest maximum temperature was recorded as 42.5°C at Turbat.

Khyber Pakhtunkhwa

Moderate to high rainfall reported from Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 31.6°C & 19.2°C respectively. For the recent week on average 143.0 growing degree days were accumulated. Average relative humidity recorded as 74% and wind speed in the morning/evening recorded as 0.6/2.2 Knots. During the previous week the highest precipitation was observed as 104.00 mm at Balakot while the highest maximum temperature was recorded as 39.5°C at D.I.Khan.

Sindh

Moderate to high rainfall reported from lower Sindh during the week. Weekly maximum and minimum temperatures recorded as 35.8°C & 26.2°C respectively. For the recent week, on average 182.1 growing degree days were accumulated. Average relative humidity recorded as 68% and wind speed in the morning/evening recorded as 2.8/5.1 Knots. During the previous week the highest precipitation was observed as 114.0 mm while the highest maximum temperature was recorded as 41.2°C at Chhor.

Gilgit-Baltistan and Azad Jammu & Kashmir

Light to moderate rainfall reported from Azad Jammu & Kashmir during the week. Weekly maximum and minimum temperatures recorded as 31.3°C & 16.3°C respectively. For the recent week on average 131.7 growing degree days were accumulated. Average relative humidity recorded as 60% and wind speed in the morning/evening recorded as 0.1/1.8 Knots. During the previous week the highest precipitation was observed as 67.50 mm at Garhi Dupatta while the highest maximum temperature was recorded as 39.0°C at Chillas.

Past Weather for Major Agricultural Plains
(27th September – 3rd October, 2021)

Rawalpindi (Potohar region)

Rainfall reported as 58.5 mm from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 2.6/1.9 Oktas while, average relative humidity observed as 85%. Mean day time temperature recorded as 33.9°C & for the recent week 162.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.2/1.5 Knots.

Faisalabad (Central Punjab)

Rainfall reported as 0.01 mm from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 0.0/4.3 Oktas while, average relative humidity observed as 64%. Mean day time temperature recorded as 36.1°C & for the recent week 180.9 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.7/0.9 Knots.

Tandojam (Lower Sindh)

Rainfall reported as 2.0 mm from Tandojam during the week; however, cloudiness in the morning/evening recorded as 3.3/3.0 Oktas while, average relative humidity observed as 70%. Mean day time temperature recorded as 35.6°C & for the recent week 177.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.4/3.7 Knots.

Usta Muhammad (Eastern Baluchistan)

Dry weather reported from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded as 1.7/2.4 Oktas while, average relative humidity observed as 67%. Mean day time temperature recorded as 37.9°C & for the recent week 193.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.5/0.2 Knots.

Quetta (Northern Baluchistan)

Rainfall reported as 0.01 mm from Quetta during the week; however, cloudiness in the morning/evening recorded as 2.6/5.4 Oktas while, average relative humidity observed as 50%. Mean day time temperature recorded as 29.3°C & for the recent week 127.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.9/4.7 Knots.

Past Weather for Sub-Regional Agricultural Plains (27th September – 3rd October, 2021)

Multan

Dry weather reported from Multan during the week; however, cloudiness in the morning/evening recorded as 2.9/3.1 Oktas while, average relative humidity observed as 63%. Mean day time temperature recorded as 37.3°C & for the recent week 182.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.7/6.6 Knots.

Lahore

Rainfall reported as 80.0 mm from Lahore during the week; cloudiness in the morning/evening recorded as 3.7/4.3 Oktas while, average relative humidity observed as 75%. Mean day time temperature recorded as 36.4°C & for the recent week 174.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.7/1.3 Knots.

Zhob

Dry weather reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 0.6/4.0 Oktas while, average relative humidity observed as 44%. Mean day time temperature recorded as 33.5°C & for the recent week 153.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.6/4.7 Knots.

Murree

Rainfall reported as 19.8 mm from Murree during the week; however, cloudiness in the morning/evening recorded as 4.6/5.9 Oktas while, average relative humidity observed as 82%. Mean day time temperature recorded as 23.5°C & for the recent week 99.9 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.1/1.4 Knots.

D.I. Khan

Dry weather reported from D.I. Khan during the week; however, cloudiness in the morning/evening recorded as 0.3/2.3 Oktas while, average relative humidity observed as 70%. Mean day time temperature recorded as 39.5°C & for the recent week 185.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.9/0.9 Knots.

Peshawar

Dry weather reported from Peshawar during the week; however, cloudiness in the morning/evening recorded as 3.7/2.9 Oktas while, average relative humidity observed as 68%. Mean day time temperature recorded as 37.7°C & for the recent week 176.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/1.7 Knots.

Kalam

Rainfall reported as 1.5 mm from Kalam during the week; however, cloudiness in the morning/evening recorded as 1.7/3.3 Oktas while, average relative humidity observed as 43%. Mean day time temperature recorded as 26.5°C & for the recent week 83.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/2.3 Knots.

Gilgit

Dry weather reported from Gilgit during the week. However, cloudiness in the morning/evening recorded as 1.6/3.9 Oktas while, average relative humidity observed as 56%. Mean day time temperature recorded as 37.0°C & for the recent week 128.7 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/2.0 Knots.

Skardu

Rainfall reported as 1.8 mm from Skardu during the week; however, cloudiness in the morning/evening recorded as 0.7/4.7 Oktas while, average relative humidity observed as 43%. Mean day time temperature recorded as 30.7°C & for the recent week 97.4 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/2.3 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, Maturity Stage.

Lower Sindh (Tandojam)

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

Cotton: Crop Variety (Sindh-1), Picking Done.

Northern Baluchistan (Quetta)

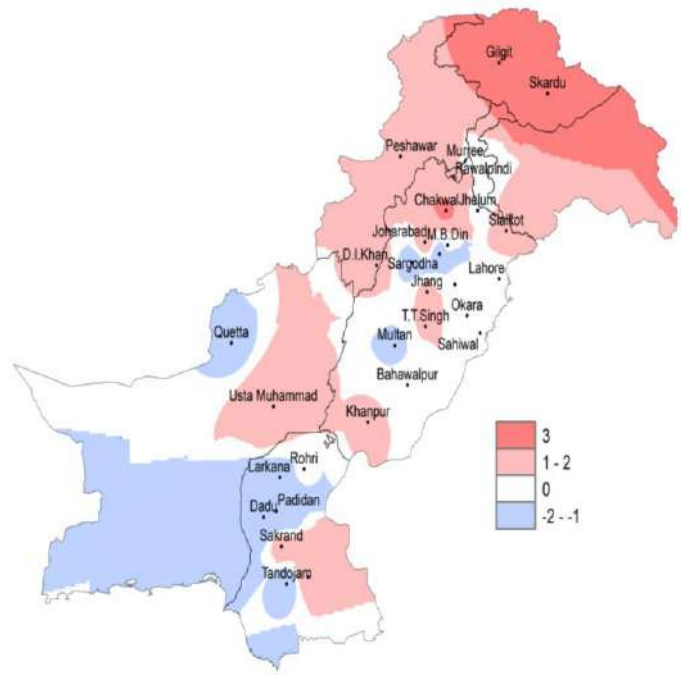
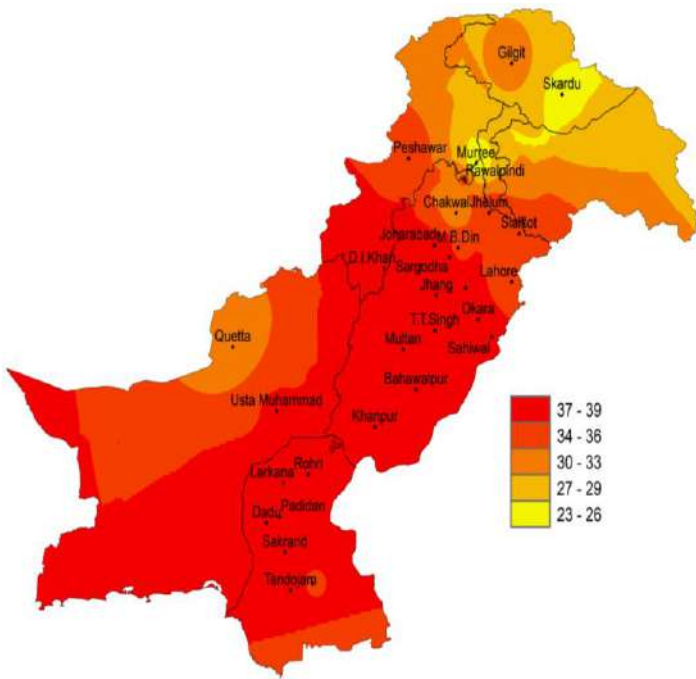
There is presently no crop grown in the fields of RAMC Quetta.

Eastern Baluchistan (Usta Muhammad)

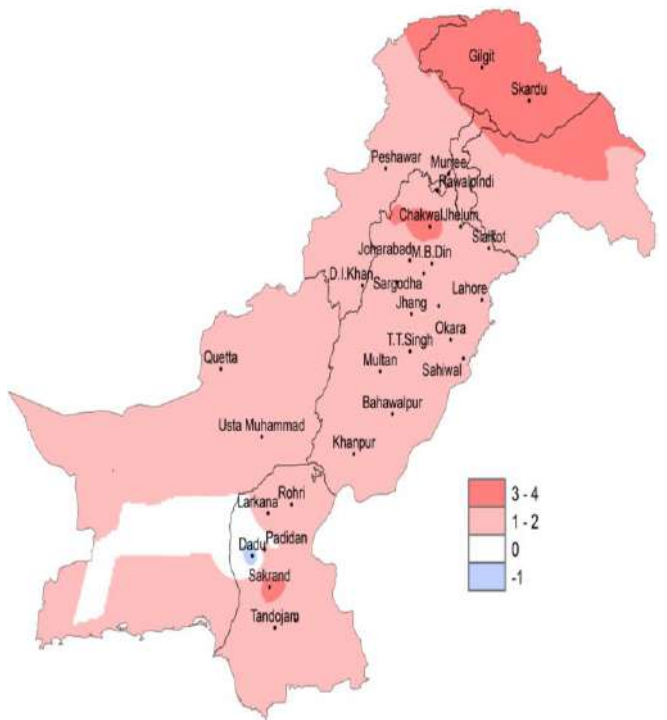
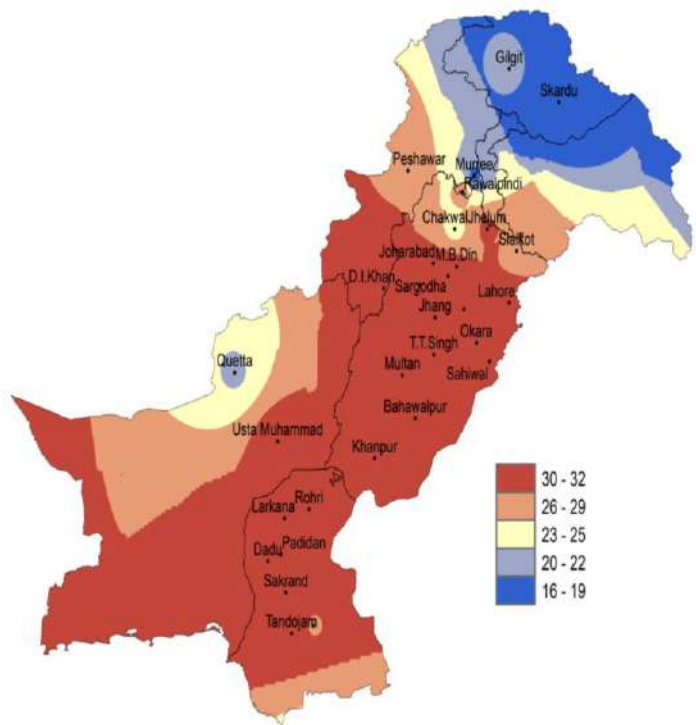
Presently Rice crop is sown in the fields of RAMC Usta Muhammad.

Rice: Good, Flowering Stage, irrigated.

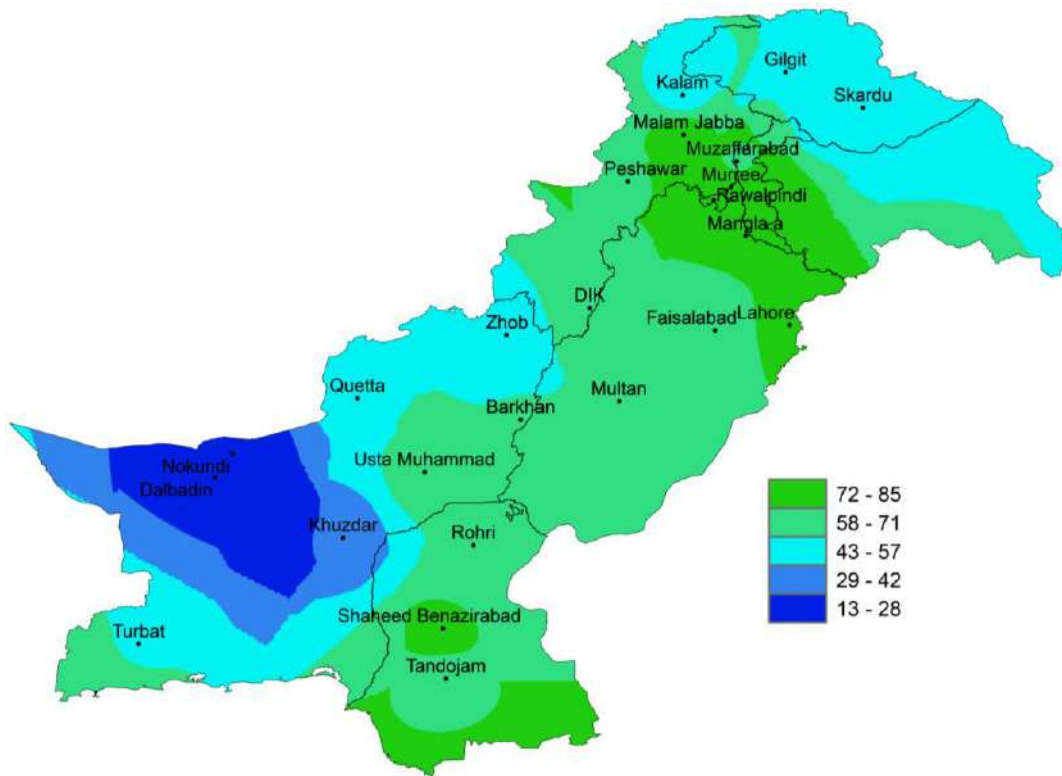
Normal & Departure of Maximum temperature (°C) for the previous week (27th September – 3rd October, 2021)



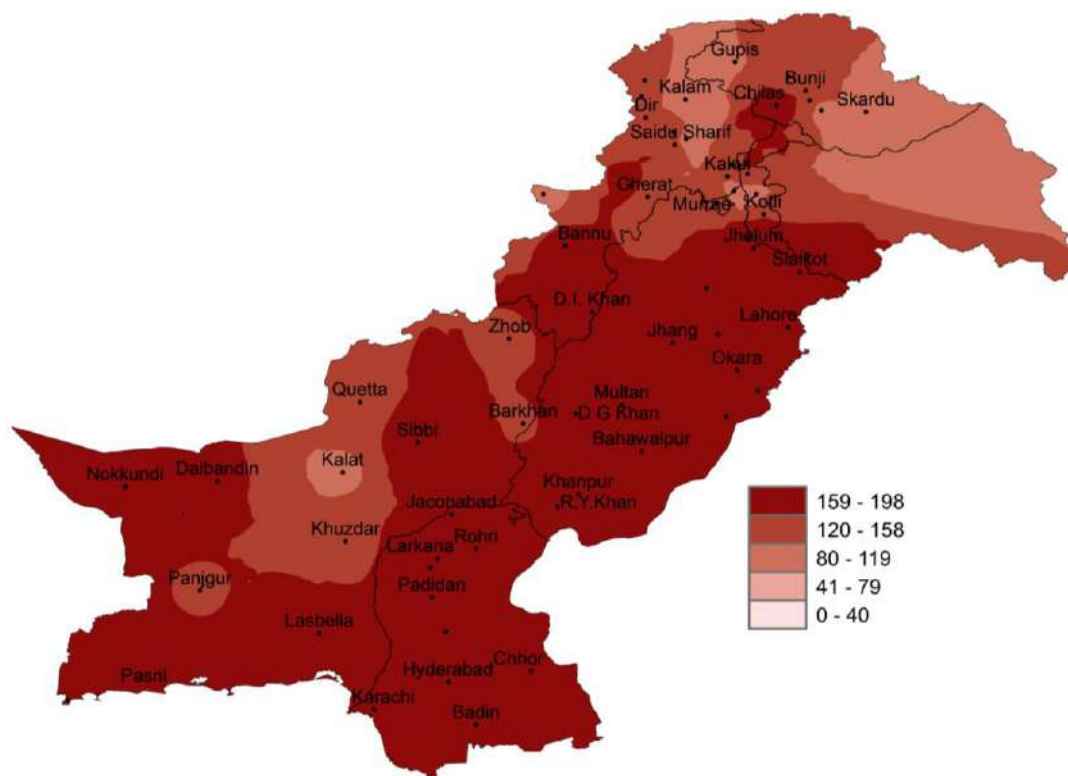
Normal & Departure of Mean temperature (°C) for the previous week (27th September – 3rd October, 2021)



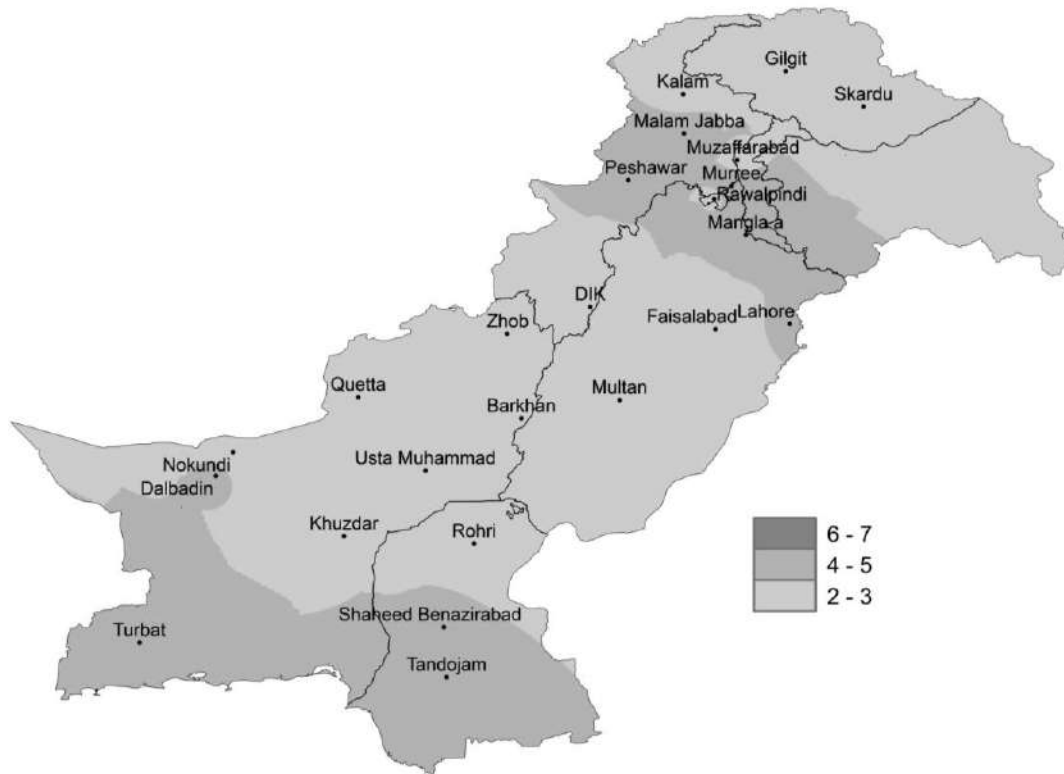
Mean Relative Humidity (%) during the previous week (27th September – 3rd October, 2021)



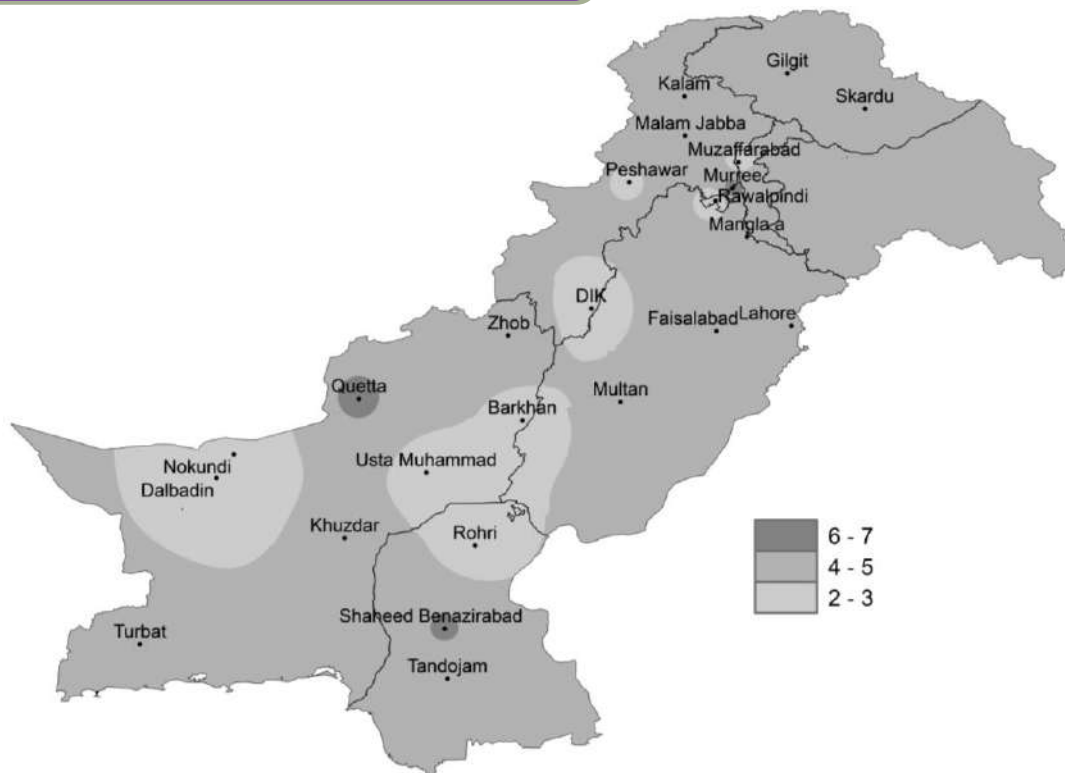
Total Growing Degree Days accumulated during the previous week (27th September – 3rd October, 2021)



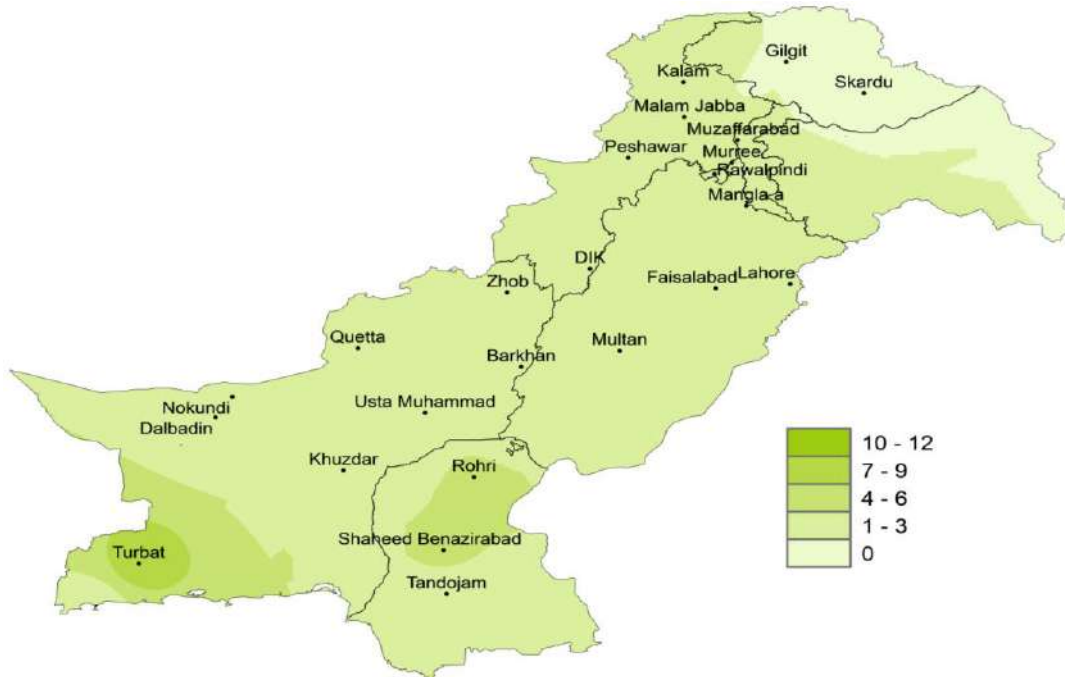
Mean Cloudiness (Oktas) at 0800PST during the previous week (27th September – 3rd October, 2021)



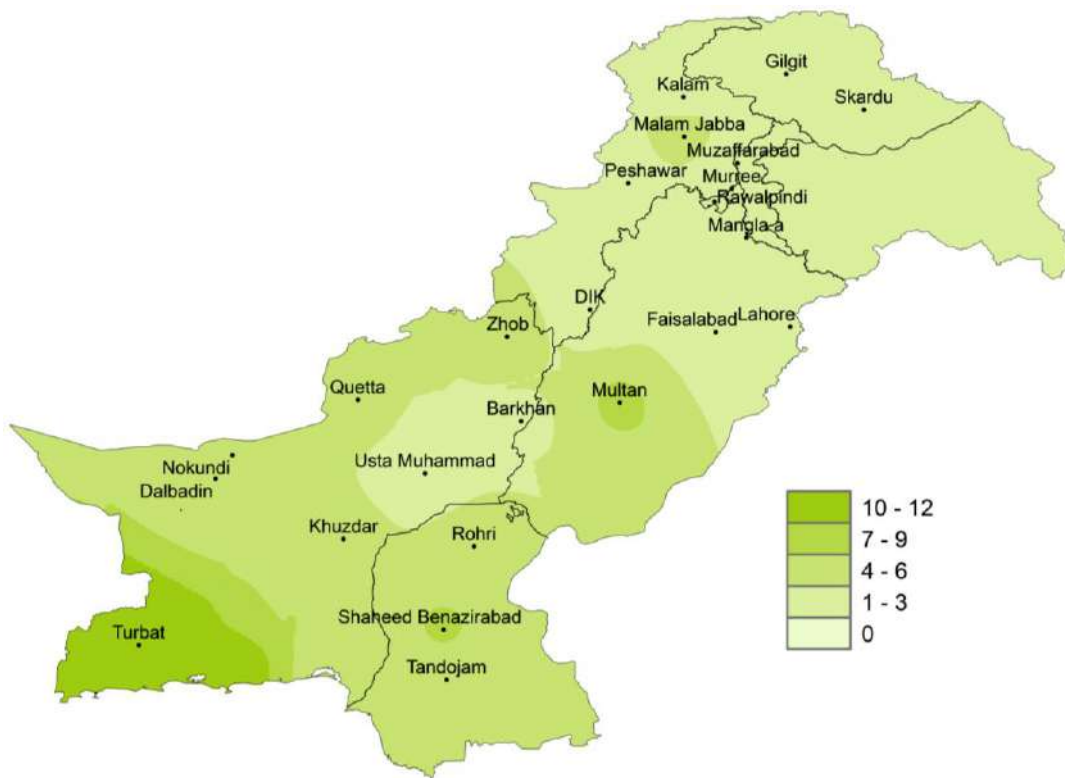
Mean Cloudiness (Oktas) at 1700PST during the previous week (27th September – 3rd October, 2021)



Mean Wind Speed (Knots) at 0800PST during the previous week (27th September – 3rd October, 2021)



Mean Wind Speed (Knots) at 1700PST during the previous week (27th September – 3rd October, 2021)



Weekly Weather Advisory for Farmers**(4th – 10th October, 2021)**

The Severe Cyclonic Storm “SHAHEEN” moved nearly westward, now lies over Gulf of Oman. A Westerly wave is also present over upper parts of the country.

MONDAY**04-10-2021**

Mainly dry weather is expected in most plain areas of the country. However, rain-wind/thundershower is expected at isolated places in northeast Punjab, upper Khyber Pakhtunkhwa, Kashmir and Gilgit Baltistan.

TUESDAY**05-10-2021**

Mainly dry weather is expected in most areas of the country. However, rain-wind/thundershower is expected at isolated places in upper Khyber Pakhtunkhwa and Gilgit Baltistan.

WEDNESDAY**06-10-2021**

Mainly dry weather is expected in most parts of the country.

THURSDAY**07-10-2021**

Mainly dry weather is expected in most parts of the country.

FRIDAY**08-10-2021.**

Mainly dry weather is expected in most parts of the country.

SATURDAY**09-10-2021**

Mainly dry weather is expected in most parts of the country.

SUNDAY**10-10-2021**

Mainly dry weather is expected in most parts of the country. However, isolated rain-wind-thunderstorm is expected in Gilgit-Baltistan and upper Khyber Pakhtunkhwa.

ADVISORY FOR FARMERS

During the last week, Moderate to high rainfall observed in Sindh and Khyber Pakhtunkhwa while light to moderate rainfall reported from Punjab, Baluchistan, Kashmir and Gilgit-Baltistan. Keeping in view the expected weather conditions farmers are advised the following advisories.

- ❖ Remove extra water from the fields of sugarcane to avoid fungal attack.
- ❖ Farmers are advised to schedule picking of cotton on time.

National Weather Data of Selected Cities from (27th September – 3rd October, 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	32.6	34.5	153.5	58	2.0	1.1	2.6	0.0	2.0
Dalbandin	37.4	40.0	165.8	27	0.0	3.4	2.1	0.6	4.0
D.I.Khan	37.9	39.5	185.3	70	0.0	0.3	2.3	0.9	0.9
Faisalabad	36.1	37.0	180.9	64	0.0	0.0	4.3	0.7	0.9
Gawadar	35.6	40.5	178.3	69	42.9	3.4	3.0	0.9	12.3
Gilgit	34.2	37.0	128.7	56	0.0	1.6	3.9	0.0	2.0
Kalam	24.4	26.5	83.0	43	1.5	1.7	3.3	0.0	2.3
Khuzdar	31.1	33.0	140.0	29	6.0	2.6	3.6	0.3	4.3
Lahore	35.0	36.4	174.3	75	80.0	3.7	4.3	0.0	0.0
Malam Jabba	19.3	20.5	72.0	85	10.0	4.7	4.7	1.7	4.0
Mangla	34.7	36.6	175.7	74	14.9	4.7	3.9	0.6	1.7
Multan	36.0	37.3	182.8	63	0.0	2.9	3.1	1.7	6.6
Murree	22.5	23.5	99.0	82	19.8	4.6	5.9	1.1	1.4
Muzaffarabad	34.1	36.0	157.7	68	27.0	2.3	2.3	0.0	1.1
Nawabshah	37.1	39.5	187.8	73	5.0	3.9	5.3	3.7	6.3
Nokkundi	38.1	40.5	179.3	13	0.0	1.7	1.6	2.0	4.9
Peshawar	35.6	37.7	176.3	68	0.0	3.7	2.9	0.0	1.7
Quetta	29.3	31.0	127.8	50	0.0	2.6	5.4	2.9	4.7
Rawalpindi	33.9	35.0	16.3	74	58.5	2.6	1.9	0.2	1.5
Rohri	37.6	38.5	194.0	61	3.0	1.3	2.1	3.4	5.4
Skardu	28.7	30.7	97.4	43	1.8	0.7	4.7	0.0	2.3
Tandojam	35.6	37.0	177.5	70	2.0	3.3	3.0	1.4	3.7
Turbat	33.6	37.0	171.8	55	14.0	4.1	4.0	7.7	11.1
Usta Muhammad	37.9	38.5	19.4	67	0.0	1.7	2.4	0.5	0.2
Zhob	32.4	33.5	153.0	44	0.0	0.6	4.0	1.6	4.7

*** 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)