

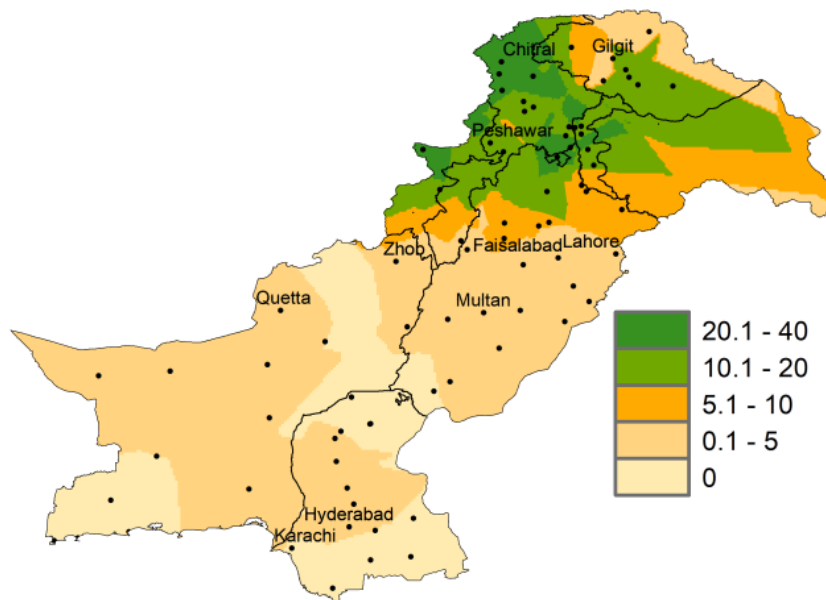
Weekly Weather and Crop Bulletin for Pakistan

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**Rainfall Distribution (mm) during the Previous
Week (22nd to 28th April, 2019)**



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Highlights of Past Weather (22nd to 28th April, 2019)

- Above normal day time temperatures were observed all over the country during the last week.
- Light to moderate rainfall observed all over the country during last week.

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Past Weather of Provinces (22nd to 28th April, 2019)**Punjab**

Light to moderate rainfall observed in Punjab during the week. Weekly maximum and minimum temperatures recorded as 37.0°C & 21.1°C respectively. For the recent week on average 167.4 growing degree days were accumulated. Average relative humidity recorded as 47% and wind speed in the morning/evening recorded as 2.8/3.6 Knots. The highest precipitation was recorded as 27.0 mm at Islamabad while maximum temperature was recorded as 45.5°C at Khanpur.

Baluchistan

Light to moderate rainfall observed in Baluchistan during the week. Weekly maximum and minimum temperatures recorded as 33.8°C & 19.4°C respectively. For the recent week on average 149.9 growing degree days were accumulated. Average relative humidity recorded as 41% and wind speed in the morning/evening recorded as 1.5/7.0 Knots. The highest precipitation was recorded as 4.0 mm while maximum temperature was recorded as 42.0°C at Lasbella.

Khyber Pakhtunkhwa

Light to moderate rainfall observed in Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 27.0°C & 12.9°C respectively. For the recent week on average 103.1 growing degree days were accumulated. Average relative humidity recorded as 62% and wind speed in the morning/evening recorded as 0.7/1.5 Knots. The highest precipitation recorded as 37.0 mm at Dir while the 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 25.7°C & 12.2°C respectively. For the recent week

on average 94.6 growing degree days were accumulated. Average relative humidity recorded as 48% and wind speed in the morning/evening recorded as 3.5/6.4 Knots. The highest precipitation recorded as 23.6 mm at Garhi Dupata while the maximum temperature was recorded as 37.1°C at Kotli.

Sindh

Light to moderate rainfall observed in Sindh during the week. Weekly maximum and minimum temperatures recorded as 41.4°C & 23.8°C respectively. For the recent week, on average 193.9 growing degree days were accumulated. Average relative humidity recorded as 43% and wind speed in the morning/evening recorded as 3.0/4.6 Knots. The highest precipitation recorded as 2.00 mm at Dadu while the maximum temperature was recorded as 46°C at Jacobabad.

Past Weather for Major Agricultural Plains (22nd to 28th April, 2019)

Rawalpindi (Potohar region)

13.1 mm rainfall reported from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 2.0/4.1 Oktas while, average relative humidity observed as 66%. Mean day time temperature recorded as 33.0°C & for the recent week 140.8 growing degree days were accumulated. Wind speed recorded in the morning/evening as 0.3/0.9 Knots.

Faisalabad (Central Punjab)

Trace (0.01mm) rainfall reported from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 0.0/2.4 Oktas while, average relative humidity observed as 43%. Mean day time temperature recorded as 38.0°C & for the recent week 176.7 growing degree days were accumulated. Wind speed recorded in the morning/evening as 1.0/1.3 Knots.

Tandojam (Lower Sindh)

0.0mm rainfall reported from Tandojam during the week; however, clear sky observed in the morning/evening while, average relative humidity observed as 51%. Mean day time temperature recorded as 41.3°C & for the recent week 186.0 growing degree days were accumulated. Wind speed recorded in the morning/evening as 2.2/2.8 Knots.

Usta Muhammad (Eastern Baluchistan)

Dry weather reported from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded as 0.5/0.5 Oktas while, average relative humidity observed as 38%. Mean day time temperature recorded as 42.1°C & for the recent week 200.0 growing degree days were accumulated. Wind speed recorded in the morning/evening as 0.5/0.8 Knots.

Quetta (Northern Baluchistan)

Trace (0.01mm) rainfall reported from Quetta during the week; however, cloudiness in the morning/evening recorded as 3.1/3.4 Oktas while, average relative humidity observed as 32%. Mean day time temperature recorded as 38.0°C & for the recent week 103.6 growing degree days were

accumulated. Wind speed recorded in the morning/evening as 3.1/3.8 Knots.

Past Weather for Sub-Regional Agricultural Plains (22nd to 28th April, 2019)

Multan

Trace (0.01mm) rainfall reported from Multan during the week; however, cloudiness in the morning/evening recorded as 1.8/1.2 Oktas while, average relative humidity observed as 45%. Mean day time temperature recorded as 38.1°C & for the recent week 182.1 growing degree days were accumulated. Wind speed recorded in the morning/evening as 5.5/5.2 Knots.

Lahore

1.40 mm rainfall was reported from Lahore during the week; however, however, cloudiness in the morning/evening recorded as 1.3/0.6 Oktas while, average relative humidity observed as 42%. Mean day time temperature recorded as 38.5°C & for the recent week 184.6 growing degree days were accumulated. Wind speed recorded in the morning/evening as 1.1/4.9 Knots.

Zhob

Dry weather reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 0.7/3.3 Oktas while, average relative humidity observed as 36%. Mean day time temperature recorded as 30.3°C & for the recent week 122.5 growing degree days were accumulated. Wind speed recorded in the morning/evening as 4.3/8.1 Knots.

Murree

20.00 mm rainfall was reported from Murree during the week; however, cloudiness in the morning/evening recorded as 1.7/4.3 Oktas while, average relative humidity observed as 54%. Mean day time temperature recorded as 22.1° C & for the recent week 81.3 growing degree days were accumulated. Wind speed recorded in the morning/evening as 1.7/0.9 Knots.

D.I. Khan

0.03 mm rainfall was reported from D.I. Khan during the week; however, cloudiness in the

morning/evening recorded as 1.7/3.1 Oktas while, average relative humidity observed as 54%. Mean day time temperature recorded as 37.0°C & for the recent week 169.3 growing degree days were accumulated. Wind speed recorded in the morning/evening as 0.9/2.3 Knots.

Peshawar

15.6 mm rainfall was reported from Peshawar during the week; however, cloudiness in the morning/evening recorded as 1.7/4.1 Oktas while, average relative humidity observed as 58%. Mean day time temperature recorded as 32.9°C & for the recent week 126.3 growing degree days were accumulated. Wind speed recorded in the morning/evening as 0.0/0.9 Knots.

Kalam

34.0 mm rainfall was reported from Kalam during the week; however, cloudiness in the morning/evening recorded as 3.1/6.7 Oktas while, average relative humidity observed as 73%. Mean day time temperature recorded as 19.6°C & for the recent week 53.3 growing degree days were accumulated. Wind speed recorded in the morning/evening as 0.0/0.6 Knots

Gilgit

2.21 mm rainfall was reported from Gilgit during the week. However, cloudiness in the morning/evening recorded as 6.6/6.4 Oktas while, average relative humidity observed as 47%. Mean day time temperature recorded as 26.9°C & for the recent week 106.5 growing degree days were accumulated. Wind speed recorded in the morning/evening as 0.6/6.9 Knots.

Skardu

3.40 mm rainfall was reported from Skardu during the week; however, cloudiness in the morning/evening recorded as 4.1/5.4 Oktas while, average relative humidity observed as 36%. Mean day time temperature recorded as 23.1°C & for the recent week 77.7 growing degree days were accumulated. Wind speed recorded in the morning/evening as 0.9/8.6 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 wheat crop is grown in the fields of RAMC Faisalabad.

Wheat: *Very Good, Milk maturity stage completed.*

Lower Sindh (Tandojam)

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

Cotton: *Germination stage.*

Northern Baluchistan (Quetta)

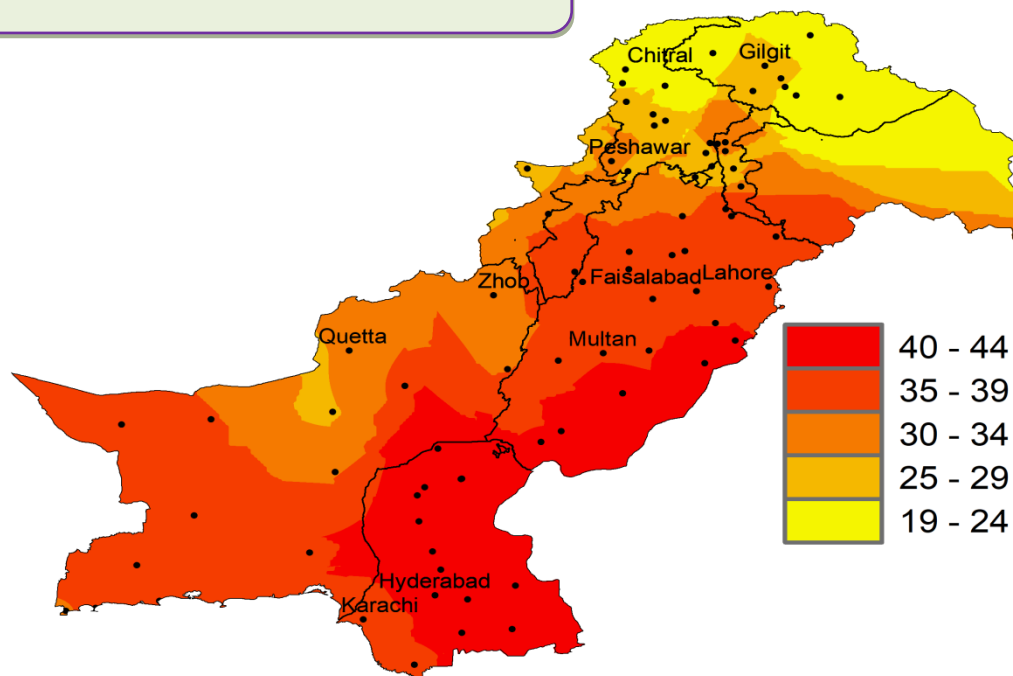
There is presently no crop grown in the fields of RAMC Quetta.

Eastern Baluchistan (Usta Muhammad)

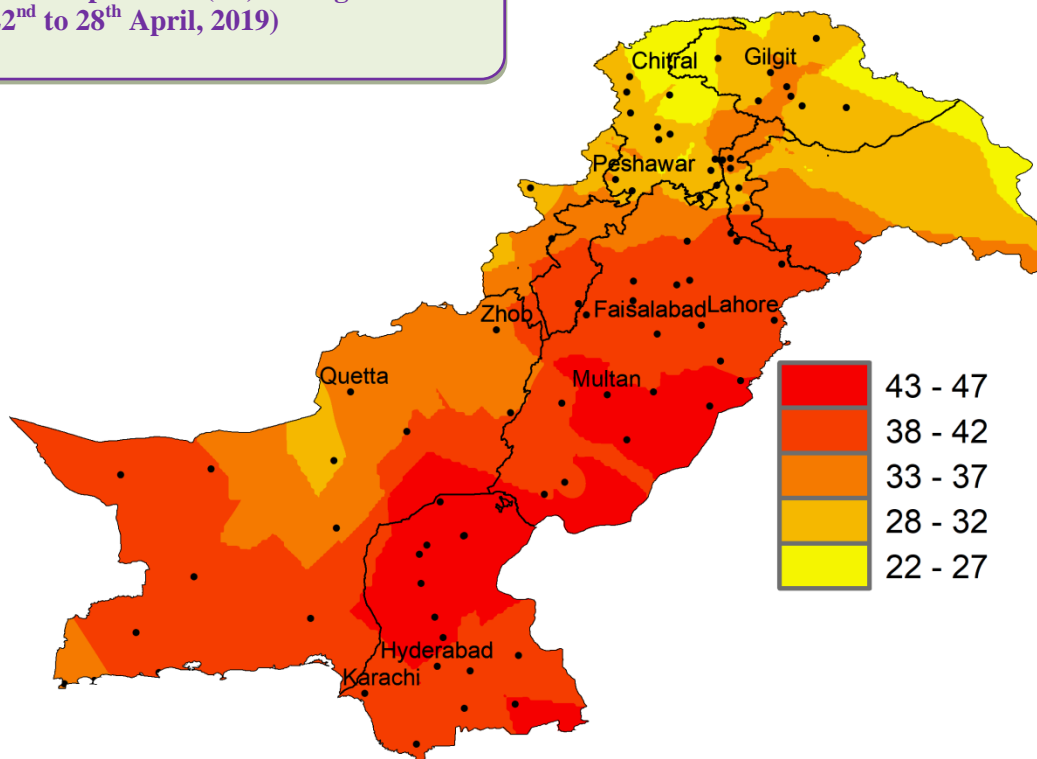
Presently wheat crop is sown in the fields of RAMC Usta Muhammad.

Wheat: *Good, Wax maturity stage.*

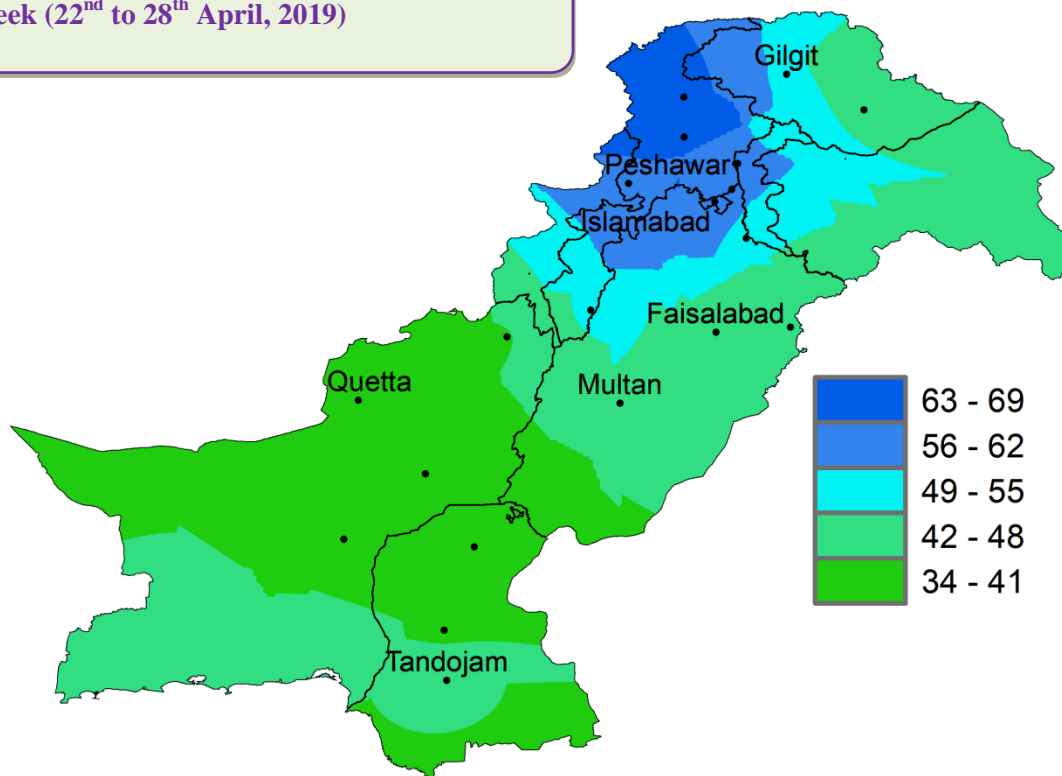
Mean Maximum temperature (°C) during the
Previous week (22nd to 28th April, 2019)



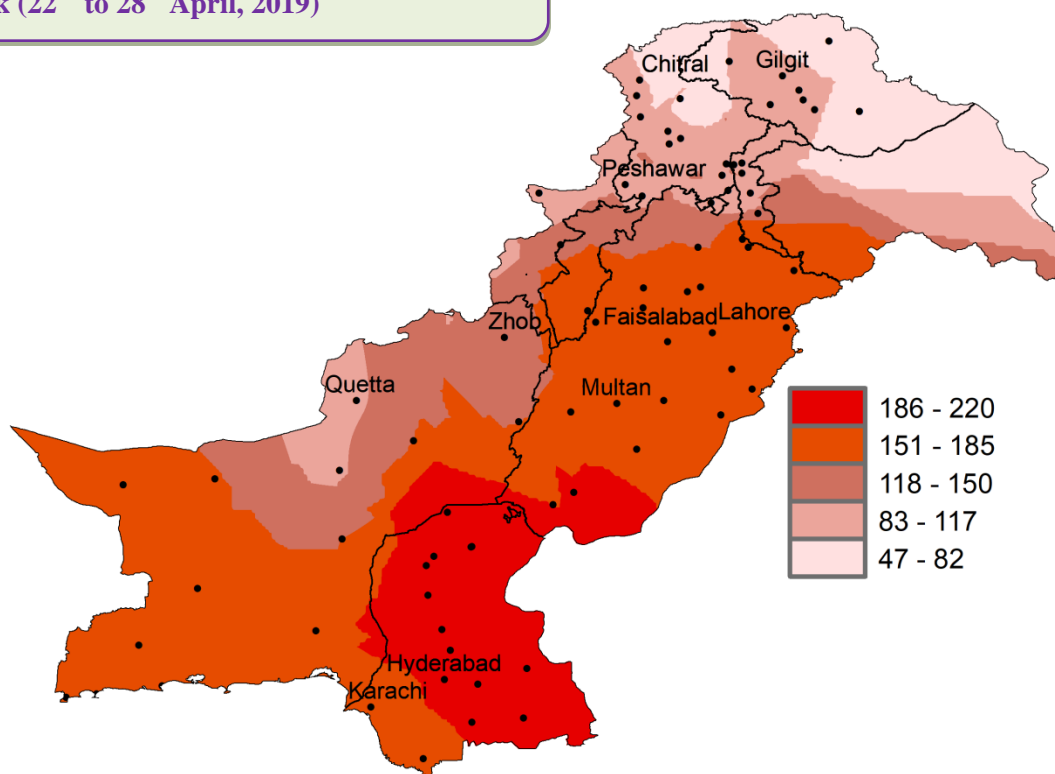
Highest Maximum Temperature (°C) during the
Previous week (22nd to 28th April, 2019)



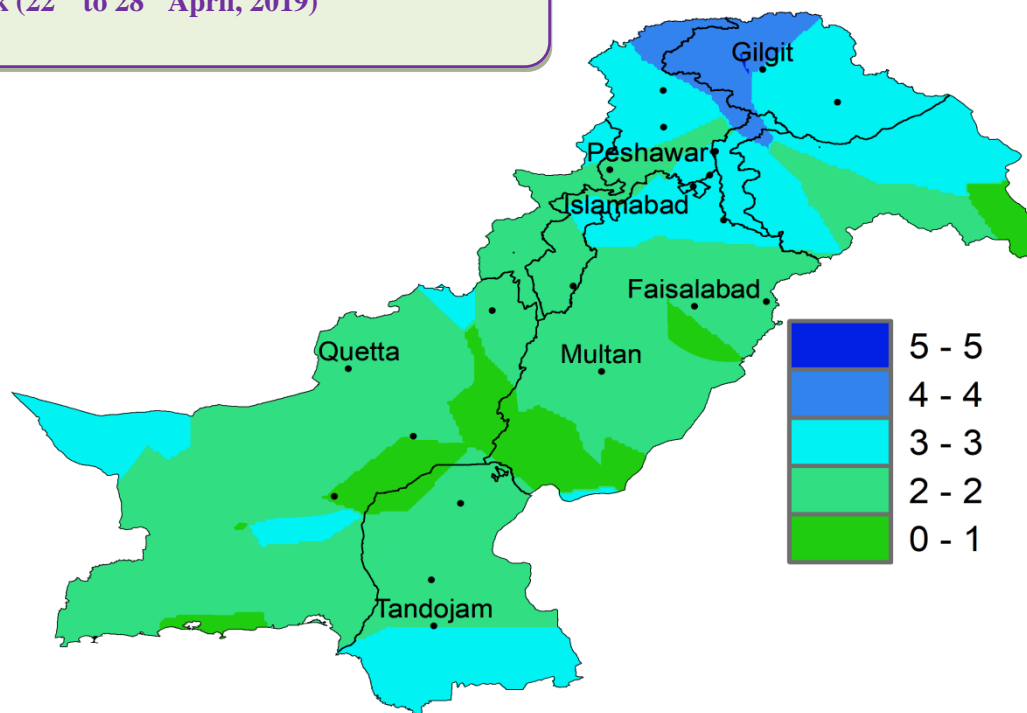
Mean Relative Humidity (%) during the
Previous week (22nd to 28th April, 2019)



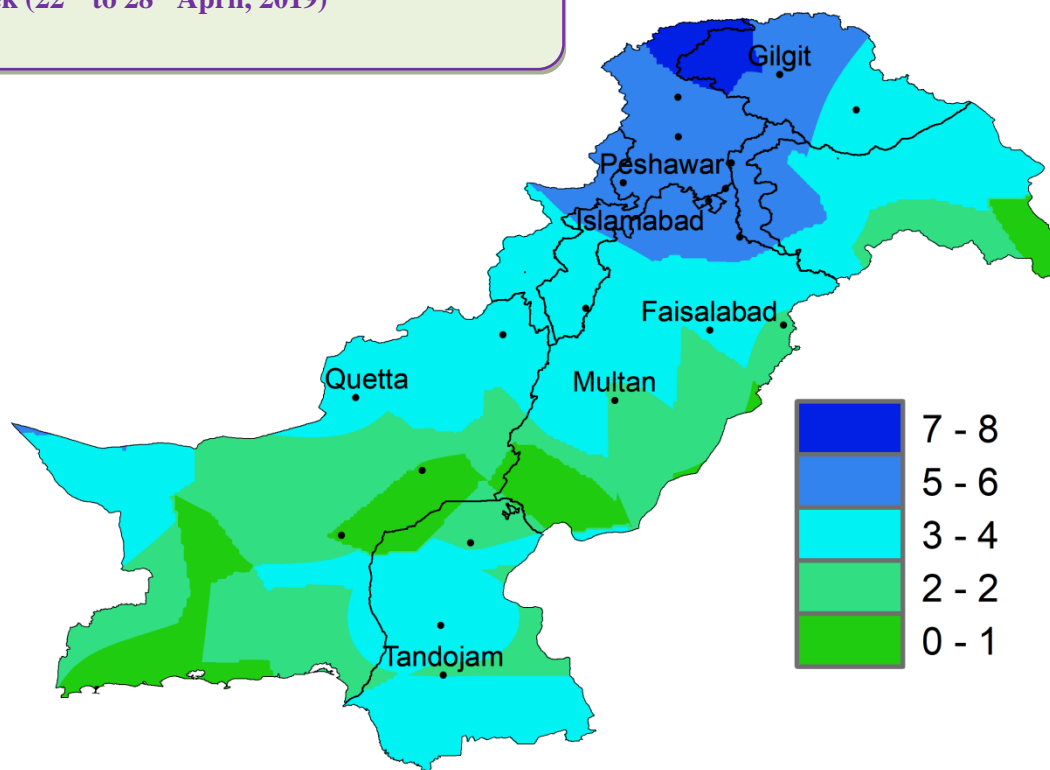
Total Growing Degree Days accumulated during the
Previous week (22nd to 28th April, 2019)



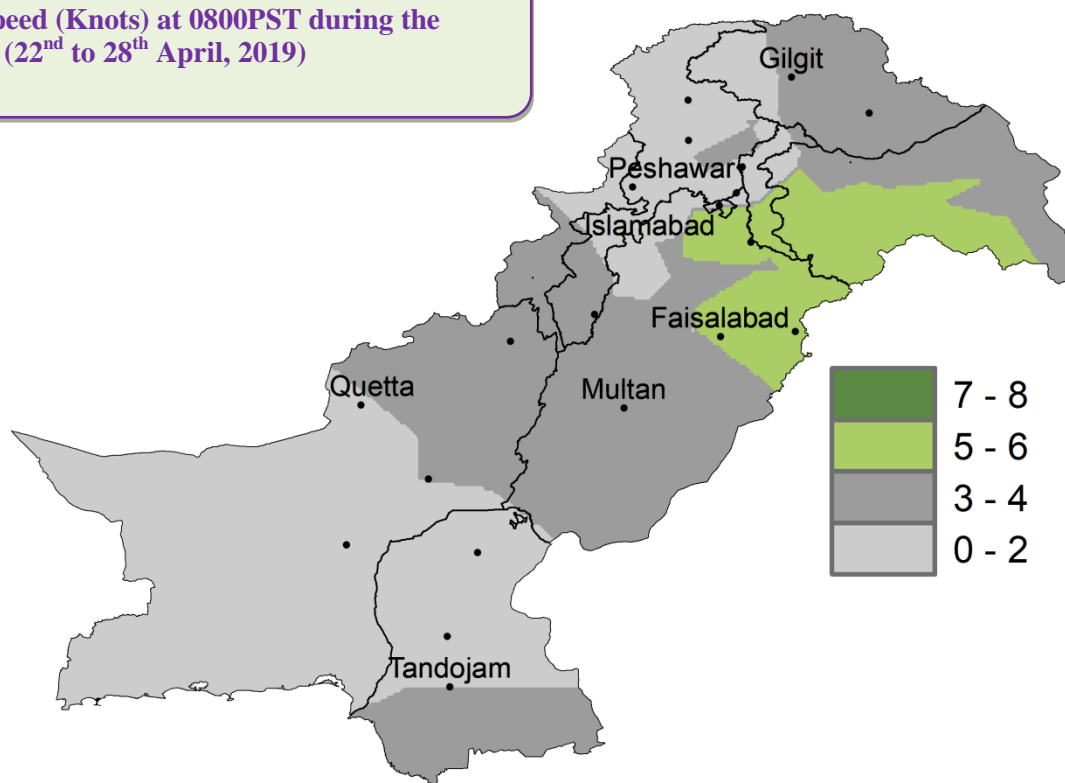
Mean Cloudiness (Oktas) at 0800PST during the Previous week (22nd to 28th April, 2019)



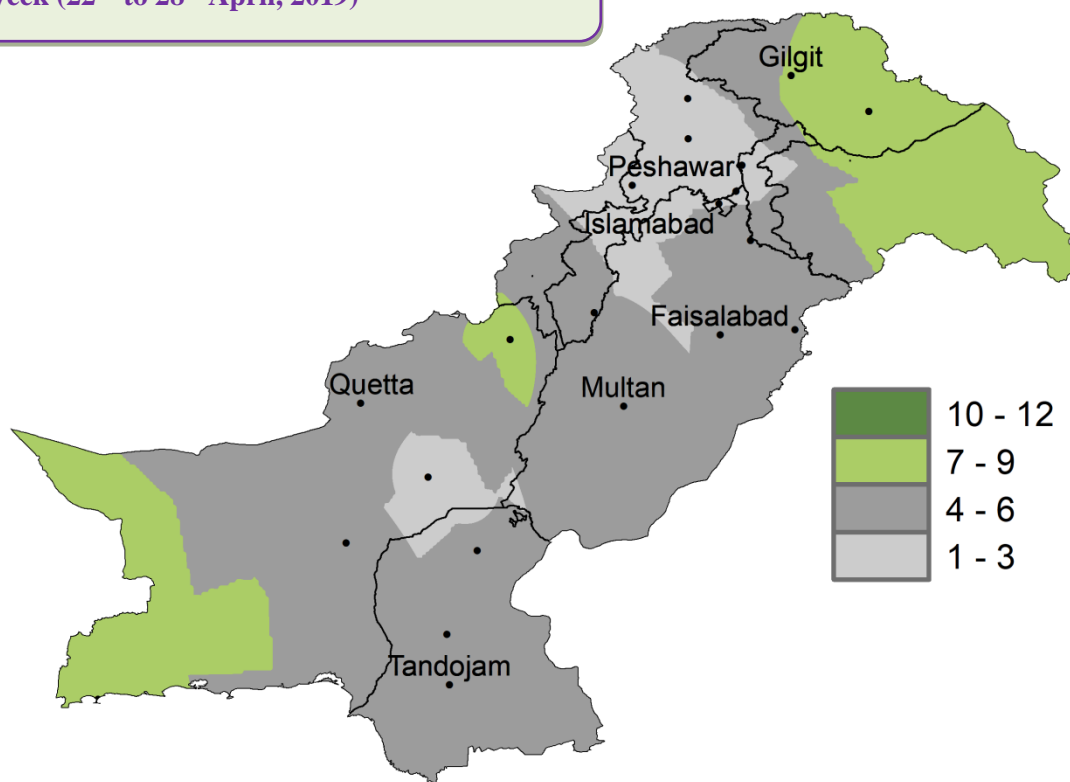
Mean Cloudiness (Oktas) at 1700PST during the Previous week (22nd to 28th April, 2019)



Mean Wind Speed (Knots) at 0800PST during the Previous week (22nd to 28th April, 2019)



Mean Wind Speed (Knots) at 1700PST during the Previous week (22nd to 28th April, 2019)



Weekly Weather Advisory for Farmers
(29th April to 5th May, 2019)

Continental air is prevailing over most parts of the country. A westerly wave is likely to affect upper parts of the country tonight and may persist during next 2-3 days.

MONDAY**29-04-2019**

Mainly hot and dry weather is expected in most parts of the country, while very hot in south Punjab and Sindh. However, dust-thunderstorm/rain with gusty winds is expected at isolated places in Malakand, Hazara, Peshawar, Kohat, Bannu, Zhob, Rawalpindi, Gujranwala, Sargodha, Lahore divisions, Islamabad, Kashmir and Gilgit-Baltistan.

TUESDAY**30-04-2019**

Mainly hot and dry weather is expected in most parts of the country, while very hot in south Punjab and Sindh. However, dust-thunderstorm/rain with gusty winds is expected at isolated places in Malakand, Hazara, Peshawar, Kohat, Rawalpindi, Gujranwala, Sargodha, Lahore divisions, Islamabad, Kashmir and Gilgit-Baltistan.

WEDNESDAY**01-05-2019**

Mainly hot and dry weather is expected in most parts of the country, while very hot in south Punjab and Sindh. However, dust-thunderstorm/rain with gusty winds is expected at isolated places in Rawalpindi, Gujranwala divisions, Gilgit-Baltistan, Kashmir and its adjoining areas.

THURSDAY**02-05-2019**

Mainly hot and dry weather is expected in most parts of the country, while very hot in south Punjab and Sindh. However, dust-thunderstorm/rain with gusty winds is expected at isolated places in

Malakand, Hazara, Gujranwala divisions, Gilgit-Baltistan, Kashmir and its adjoining areas.

FRIDAY**03-05-2019**

Mainly hot and dry weather is expected in most parts of the country, while very hot in south Punjab and Sindh. However, rain-thunderstorm is expected at isolated places in Malakand, Hazara, Zhob divisions, Gilgit-Baltistan and Kashmir.

SATURDAY**04-05-2019**

Mainly hot and dry weather is expected in most parts of the country, while very hot in south Punjab and Sindh. However, rain-thunderstorm is expected at isolated places in Malakand division, Gilgit-Baltistan and Kashmir.

SUNDAY**05-05-2019**

Mainly hot and dry weather is expected in most parts of the country, while very hot in south Punjab and Sindh. However, rain-thunderstorm is expected at isolated places in Malakand division and Gilgit-Baltistan.

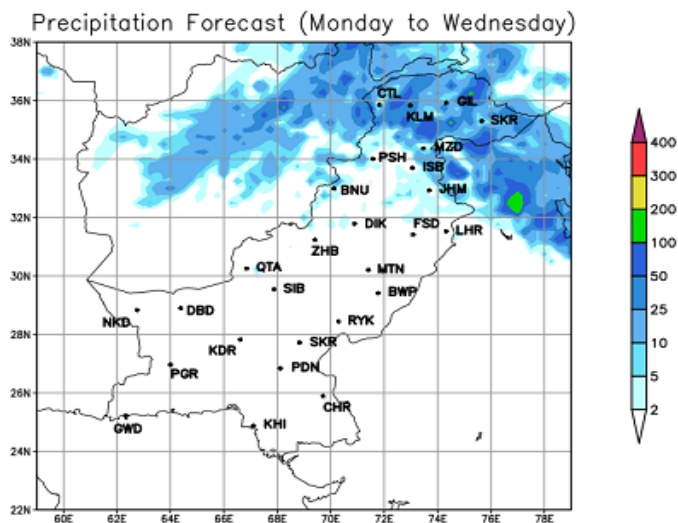
ADVISORY FOR FARMERS

During the last week, light to moderate rainfall occurred almost all over the country. This may continue with almost the same pattern over the upper half of the country in coming days as well. Keeping in view the expected weather conditions following advises are suggested for farming community.

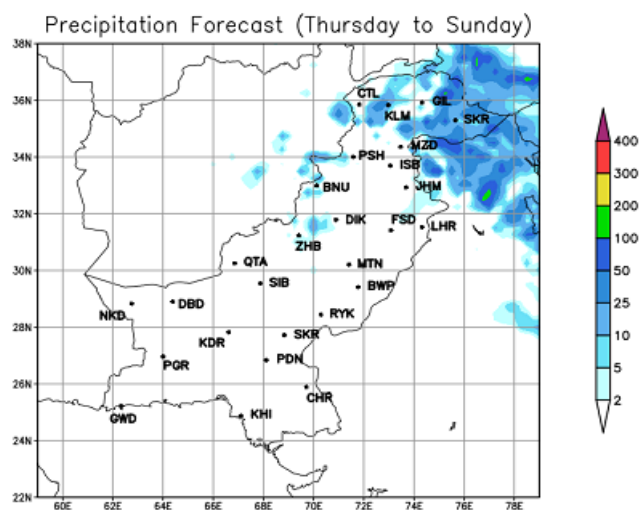
1. Farmers are advised to apply deep ploughing in the fields after harvested the Wheat crops.
2. To obtain the possible yield of wheat crop, weather forecast should be considered before harvesting.

Precipitation Outlook from 29th April to 5th May, 2019

The outlook from 29th April to 1st May, 2019 shows that light to moderate rainfall is expected in Potohar Region, Upper Khyber Pakhtunkhwa, Gilgit Baltistan and Azad Kashmir while light rainfall may occur at scattered places of lower KP and central Punjab.



The outlook from 2nd May to 5th May, 2019 shows that light to moderate rainfall is expected at isolated places of Khyber Pakhtunkhwa, Gilgit Baltistan and azad Kashmir. However dry weather may prevail over rest of the country.



National Weather Data of Selected Cities Weekly Data from (22nd April to 28th April, 2019)

Stations	Minimum/Night 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	30.0	36.5	132.5	72	51.0	3.1	3.0	1.1	2.0
Faisalabad	31.1	37.0	135.6	63	33.0	2.9	3.9	0.8	1.5
Gawader	31.7	33.0	143.5	64	0.0	0.7	0.4	0.0	2.3
Gilgit	26.9	30.0	97.0	46	0.4	4.3	6.3	0.3	2.6
Kalam	16.4	22.5	35.4	70	69.3	5.9	6.1	0.0	0.0
Khuzdar	27.2	33.5	114.3	56	4.3	2.0	3.3	0.6	2.9
Lahore	30.9	36.7	141.8	55	52.0	3.7	3.4	1.7	3.1
Malam Jabba	13.7	19.5	86.4	72	98.0	4.7	4.7	3.7	2.6
Mangla	30.3	34.8	133.2	61	29.8	4.4	4.0	0.6	1.7
Multan (PBO)	31.6	38.2	142.9	59	6.6	2.0	3.3	4.3	4.6
Murree	17.1	20.8	55.4	68	19.2	3.7	4.6	3.4	1.9
Muzaffarabad	26.0	31.3	95.0	67	28.0	4.1	4.9	1.7	3.0
Nawabshah	36.9	42.0	162.8	47	0.0	1.6	2.3	5.7	3.4
Peshawar	28.3	36.0	108.8	72	36.0	4.0	5.0	0.6	1.4
Quetta	38.0	28.5	67.8	50	27.4	3.4	3.9	2.1	2.1
Rawalpindi	28.8	33.2	117.7	69	27.4	3	3.6	0.9	0.9
Rohri	34.9	42.0	161.0	52	2.4	1.3	1.0	1.7	2.3
Skardu	22.9	25.4	77.7	35	0.0	4.0	4.3	1.1	2.0
Tandojam	35.9	39.0	158.3	51	2.0	1.3	1.6	1.4	3.9
Usta.M	35.4	42.0	160.5	53	9.0	2.5	1.7	0.8	0.8
Zhob	23.9	31.0	8.8	56	34.0	2.0	3.1	4.0	5.0

*** 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)