

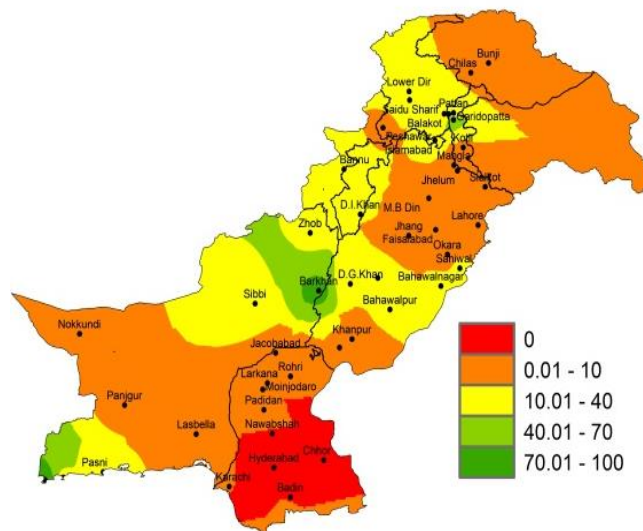
Weekly Weather and Crop Bulletin for Pakistan

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**Rainfall Distribution (mm) during the Previous
Week (8th to 14th April, 2019)**



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Highlights of Past Weather (8th to 14th April, 2019)

Above normal day time temperatures were observed in Sindh while mix trend was observed over rest of the country during the last week.

Province wise distribution of rainfall reported as follows:

1. Light to moderate rainfall observed all over the country except Sindh, where light rainfall was observed during last week.

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

Editor-in-Chief: Dr M. Afzaal (Director)

Editor: Saeeda Saleh (Assistant Meteorologist)

Past Weather of Provinces (8th to 14th April, 2019)**Punjab**

Light to moderate rainfall observed in Punjab during the week. Weekly maximum and minimum temperatures recorded as 33.7°C & 19.5°C respectively. For the recent week on average 150.6 growing degree days were accumulated by the end of the last week. Average relative humidity recorded as 54% and wind speed in the morning/evening recorded as 2.2/3.3 Knots. During the previous the highest precipitation was recorded as 49.0 mm at Murree while the highest maximum temperature was recorded as 41.2°C at Rahim Yar Khan.

Baluchistan

Light to moderate rainfall observed in Baluchistan during the week. Weekly maximum and minimum temperatures recorded as 31.3°C & 19.3°C respectively. For the recent week on average 141 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 52% and wind speed in the morning/evening recorded as 1.8/3.8 Knots. During the previous the highest precipitation was recorded as 94.0 mm at Jiwanie while the highest maximum temperature was recorded as 41.0°C at Lasbella.

Khyber Pakhtunkhwa

Light to moderate rainfall observed in Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 24.7°C & 11.7°C respectively. For the recent week on average 95.1 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 66% and wind speed in the morning/evening recorded as 1.6/1.5 Knots. During the previous week the highest precipitation recorded as 59.10 mm at Kalam while the highest maximum temperature was recorded as 36.0°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 22.9°C & 10.8°C respectively. For the recent week on average 87.2 growing degree days were accumulated by the end of the last week. Average relative humidity recorded as 53% and wind speed in the morning/evening recorded as 1.2/1.8 Knots. During the previous week the highest precipitation recorded as 49.60 mm at Garhi Dupatta while the highest maximum temperature was recorded as 33°C at Garhi Dupatta.

Sindh

Light rainfall observed in Sindh during the week. Weekly maximum and minimum temperatures recorded as 39.6°C & 23.3°C respectively. For the recent week, on average 185.1 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 44% and wind speed in the morning/evening recorded as 1.7/2.7 Knots. During the previous week the highest precipitation recorded as 1.02 mm at Jacobabad while the highest maximum temperature was recorded as 44°C at Nawabshah.

Past Weather for Major Agricultural Plains (8th to 14th April, 2019)

Rawalpindi (Potohar region)

10.0 mm rainfall reported from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 3.1/4.9 Oktas while, average relative humidity observed as 51%. Mean day time temperature recorded as 34.6°C & for the recent week 157.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/1.1 Knots.

Faisalabad (Central Punjab)

3.4mm rainfall reported from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 2.3/2.6 Oktas while, average relative humidity observed as 54%. Mean day time temperature recorded as 34.6°C & for the recent week 157.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.9/1.0 Knots.

Tandojam (Lower Sindh)

Dry weather reported from Tandojam during the week; however, cloudiness in the morning/evening recorded as 0.4/1.1 Oktas while, average relative humidity observed as 52%. Mean day time temperature recorded as 40.0°C & for the recent week 182.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.9/1.7 Knots.

Usta Muhammad (Eastern Baluchistan)

4.0mm rainfall reported from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded as 2.8/3.1 Oktas while, average relative humidity observed as 59%. Mean day time temperature recorded as 39.2°C & for the recent week 182.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.8/3.1 Knots.

Quetta (Northern Baluchistan)

29.8mm rainfall reported from Quetta during the week; however, cloudiness in the morning/evening recorded as 6.4/6.0 Oktas while, average relative humidity observed as 54%. Mean day time temperature recorded as 38.0°C & for the recent

week 86.4 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.5/2.8 Knots.

Past Weather for Sub-Regional Agricultural Plains (8th to 14th April, 2019)

Multan

13.3mm rainfall reported from Multan during the week; however, cloudiness in the morning/evening recorded as 3.1/4.0 Oktas while, average relative humidity observed as 50.4%. Mean day time temperature recorded as 34.5°C & for the recent week 159.25 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 3.7/5.1 Knots.

Lahore

1.12 mm rainfall was reported from Lahore during the week; however, however, cloudiness in the morning/evening recorded as 4.1/3.0 Oktas while, average relative humidity observed as 47%. Mean day time temperature recorded as 34.1°C & for the recent week 164.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.0/3.3 Knots.

Zhob

34 mm rainfall was reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 1.6/4.7 Oktas while, average relative humidity observed as 56%. Mean day time temperature recorded as 27.2°C & for the recent week 108 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 4.0/4.7 Knots.

Murree

49.0 mm rainfall was reported from Murree during the week; however, cloudiness in the morning/evening recorded as 4.3/5.3 Oktas while, average relative humidity observed as 65%. Mean day time temperature recorded as 19.1° C & for the recent week 65.7 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.9/1.3 Knots.

D.I. Khan

10 mm rainfall was reported from D.I. Khan during the week; however, cloudiness in the morning/evening recorded as 1.1/2.7 Oktas while, average relative humidity observed as 63%. Mean day time temperature recorded as 34.0°C & for the recent week 148.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.0/1.3 Knots.

Peshawar

6.03 mm rainfall was reported from Peshawar during the week; however, cloudiness in the morning/evening recorded as 4.4/6.6 Oktas while, average relative humidity observed as 57%. Mean day time temperature recorded as 31.5°C & for the recent week 114.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.3/1.1 Knots.

Kalam

59.1 mm rainfall was reported from Kalam during the week; however, cloudiness in the morning/evening recorded as 6.4/7.0 Oktas while, average relative humidity observed as 76%. Mean day time temperature recorded as 16.3°C & for the recent week 39.05 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.6 Knots

Gilgit

However, cloudiness in the morning/evening recorded as 6.3/6.7 Oktas while, average relative humidity observed as 50%. Mean day time temperature recorded as 24.2°C & for the recent week 89.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.1/1.1 Knots.

Skardu

1.7 mm rainfall was reported from Skardu during the week; however, cloudiness in the morning/evening recorded as 7.0/5.3 Oktas while, average relative humidity observed as 45%. Mean day time temperature recorded as 20.3°C by the end of last week. Wind speed recorded in the morning/evening as 0.0/3.0 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 wheat crop is grown in the fields of RAMC Faisalabad.

Wheat: *Very Good, Wax maturity complete stage.*

Lower Sindh (Tandojam)

The land was prepared for new crop in the fields of RAMC Tandojam.

Northern Baluchistan (Quetta)

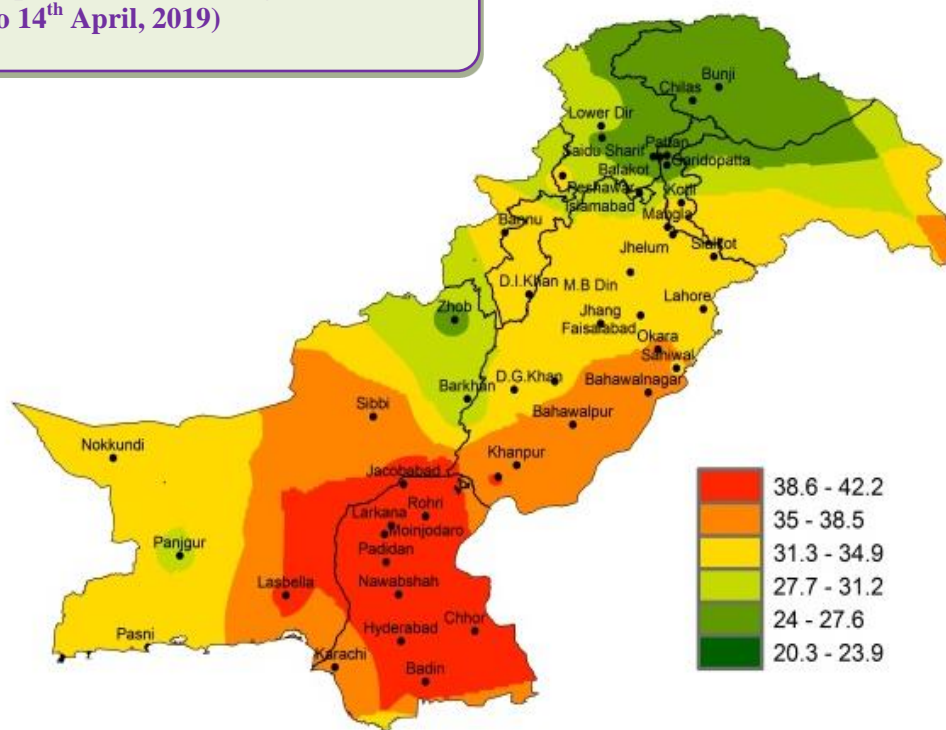
There is presently no crop grown in the fields of RAMC Quetta.

Eastern Baluchistan (Usta Muhammad)

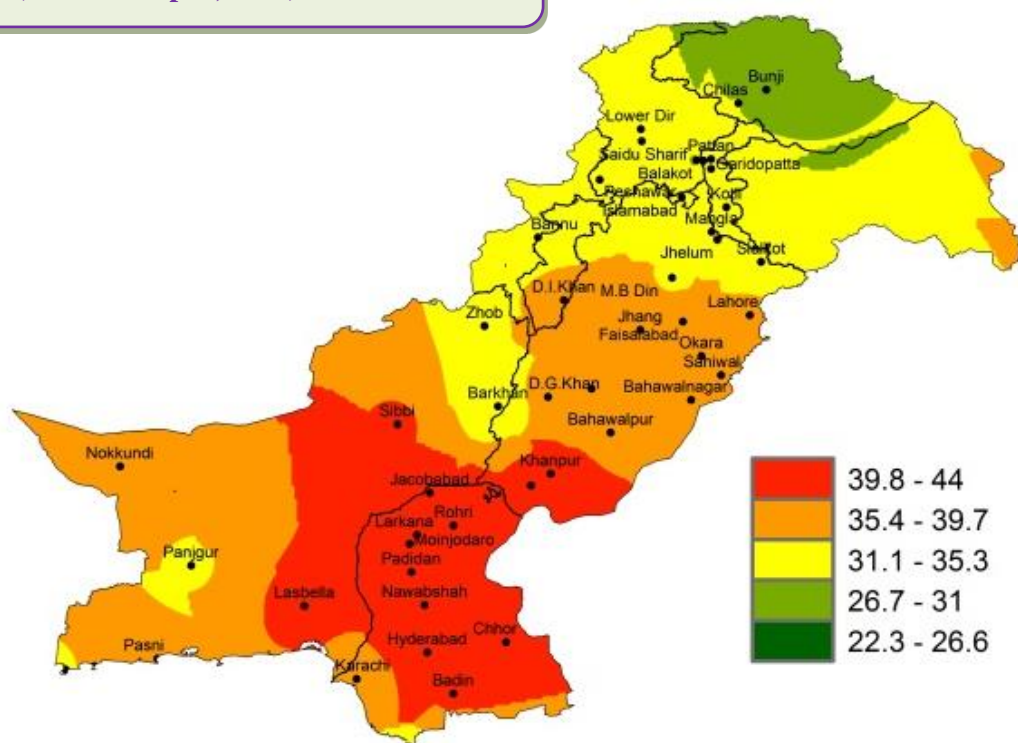
Presently wheat crop is sown in the fields of RAMC Usta Muhammad.

Wheat: *Good, Wax maturity stage.*

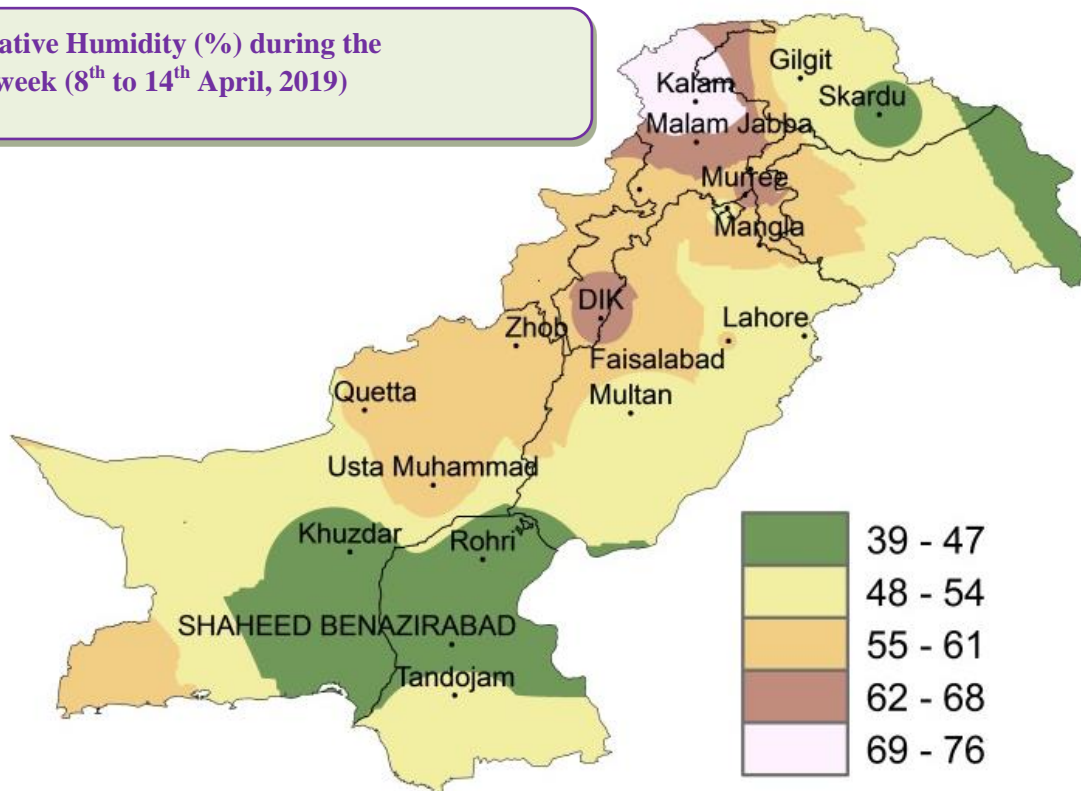
Mean Maximum temperature (°C) during the Previous week (8th to 14th April, 2019)



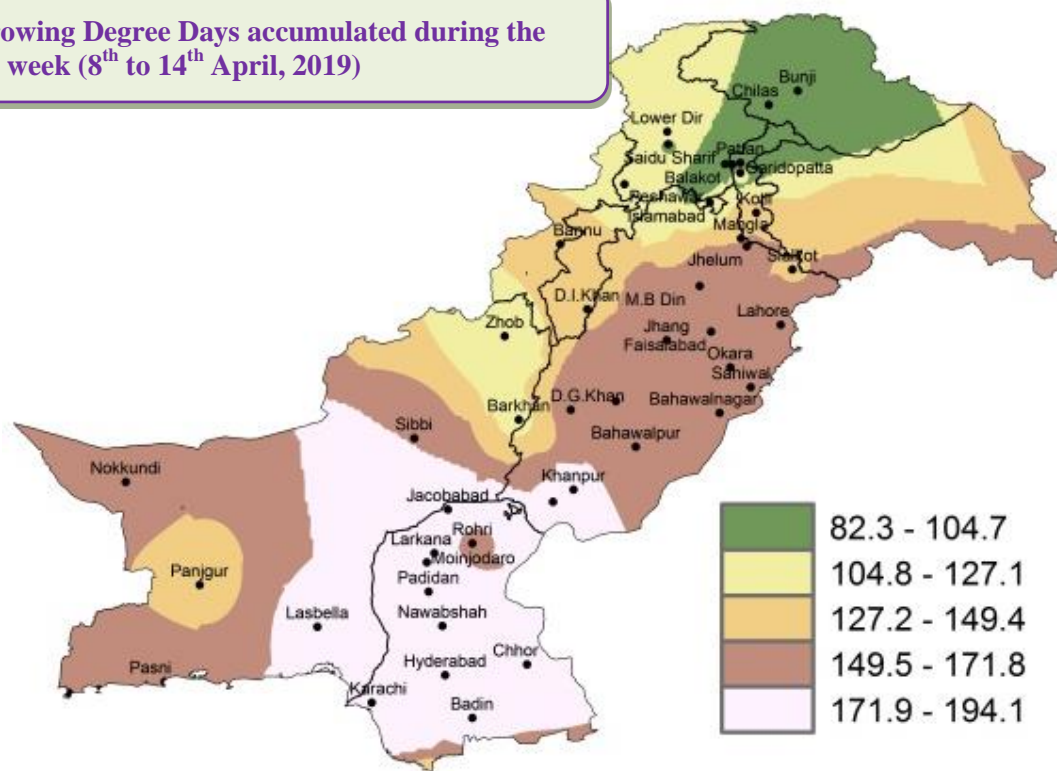
Highest Maximum Temperature (°C) during the Previous week (8th to 14th April, 2019)



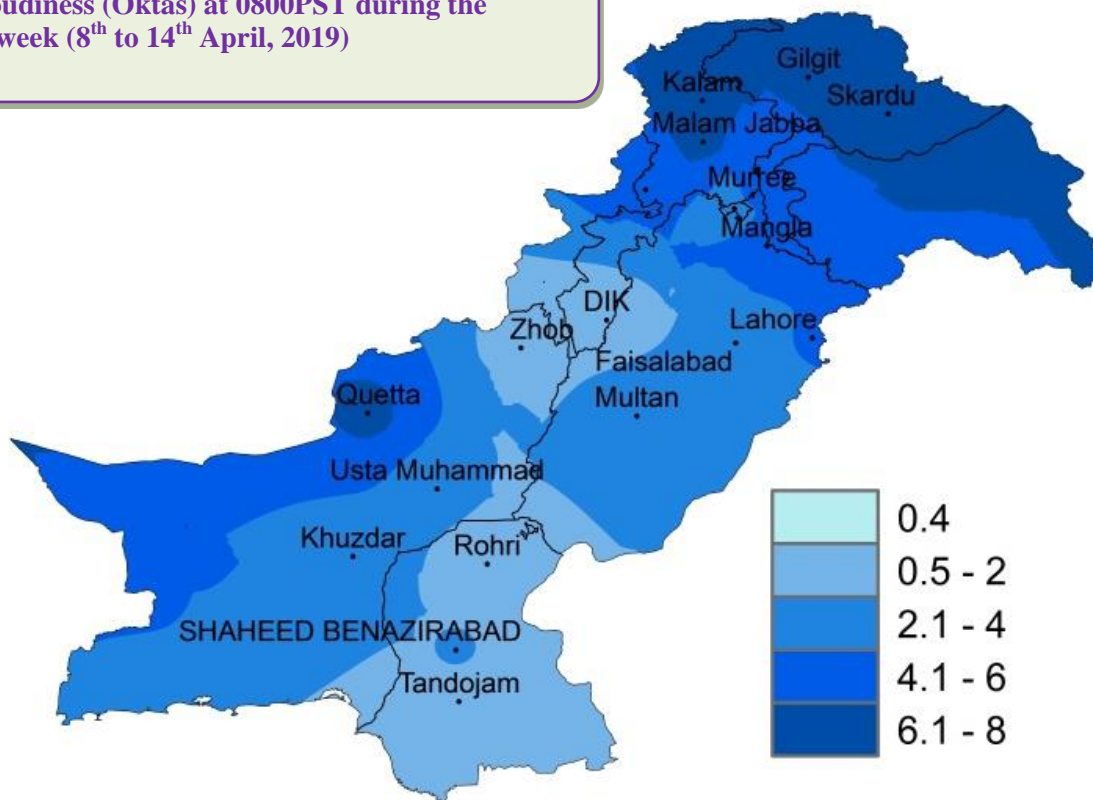
Mean Relative Humidity (%) during the
Previous week (8th to 14th April, 2019)



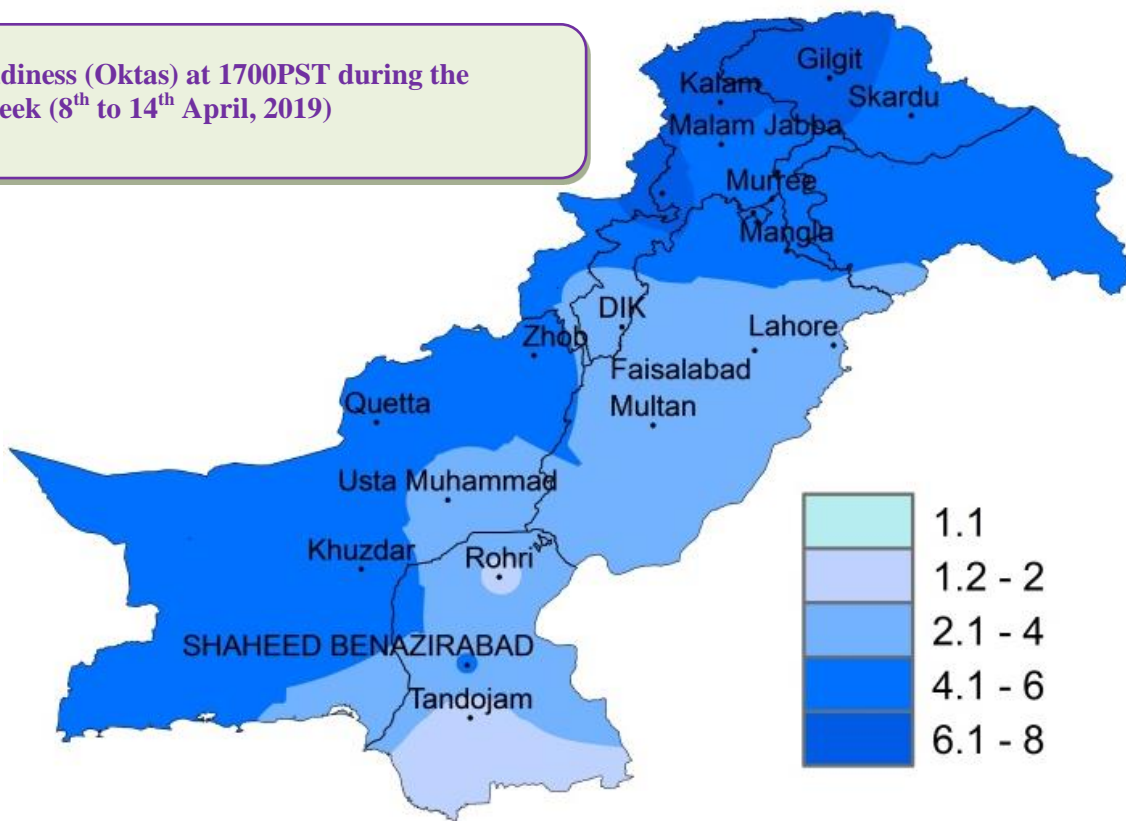
Total Growing Degree Days accumulated during the
Previous week (8th to 14th April, 2019)



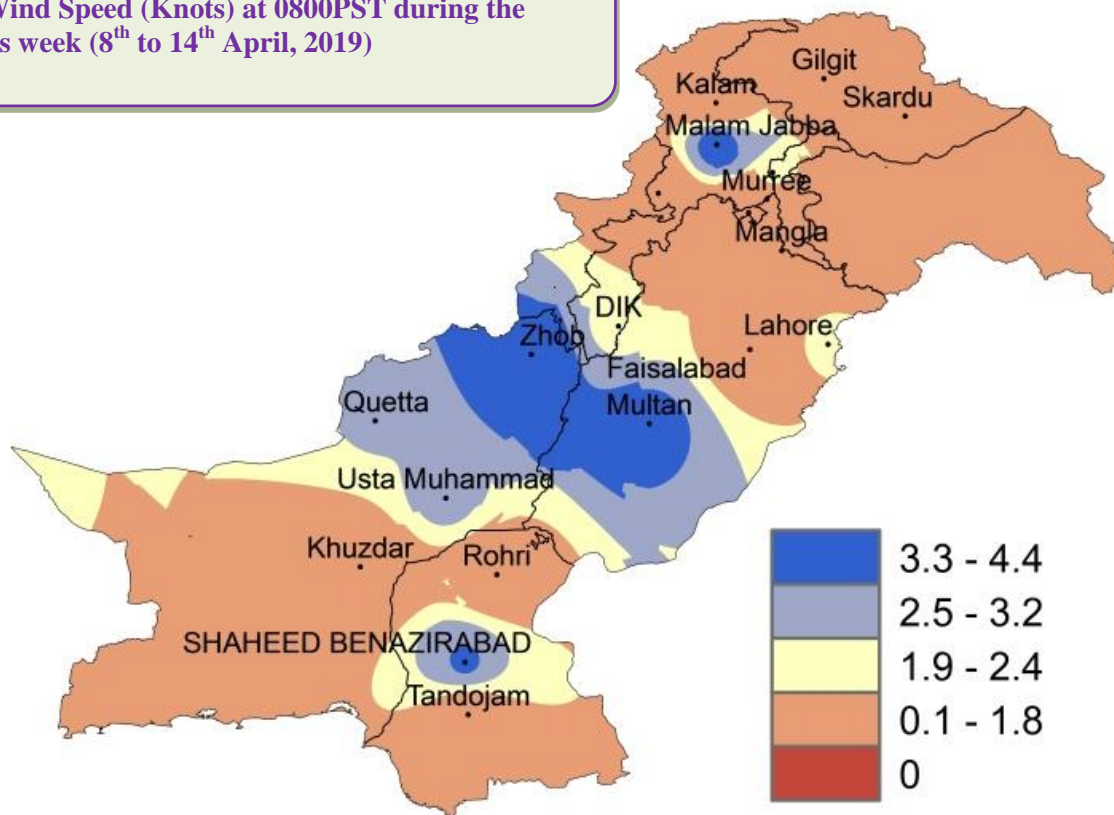
Mean Cloudiness (Oktas) at 0800PST during the Previous week (8th to 14th April, 2019)



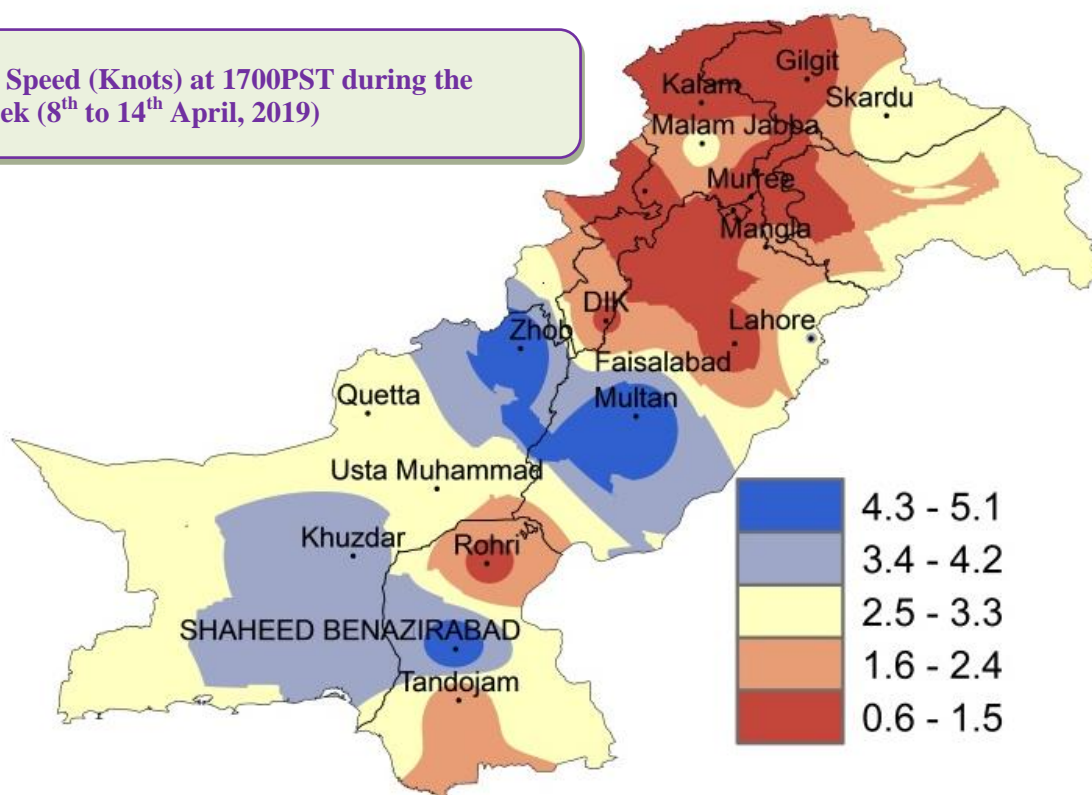
Mean Cloudiness (Oktas) at 1700PST during the Previous week (8th to 14th April, 2019)



Mean Wind Speed (Knots) at 0800PST during the Previous week (8th to 14th April, 2019)



Mean Wind Speed (Knots) at 1700PST during the Previous week (8th to 14th April, 2019)



Weekly Weather Advisory for Farmers
(15th April to 21st April, 2019)

A westerly wave is affecting upper and central parts of the country and likely to persist upper parts of the country till Thursday (afternoon).

MONDAY

15-04-2019

Dust-thunderstorm/rain is expected at scattered places in Balochistan, Khyber Pakhtunkhwa, south Punjab (Multan, D.G.Khan divisions), Sindh (Shaheed Benazirabad, Sukkur, Larkana, Karachi, Hyderabad, Thatta divisions), while at isolated places in Sargodha, Faisalabad, Sahiwal, Lahore, Gujranwala, Rawalpindi divisions, Islamabad and Kashmir during today (evening/night). Hailstorm is also expected at isolated places during the period. Few heavy falls are also expected in Makran, Kalat, Zhob, Kohat, Bannu and D.I.Khan divisions. Heavy falls may generate flash flooding in local nullah/riverine in Makran, Quetta, Zhob, D.G.khan divisions on Monday.

TUESDAY

16-04-2019

Widespread dust-thunderstorm/rain accompanied by gusty winds is expected in Khyber Pakhtunkhwa, at scattered places in Balochistan, Punjab, Islamabad, Quetta, Zhob divisions, Kashmir, while at isolated places in Sukkur, Larkana divisions and Gilgit Baltistan. Hailstorm is also expected at isolated places during the period. Few moderate to isolated heavy falls are also expected in Malakand, Hazara, Kohat divisions and Kashmir. Heavy rains may trigger landslides in Malakand, Hazara divisions, Gilgit Baltistan and Kashmir on Tuesday.

WEDNESDAY

17-04-2019

Rain-thunderstorm is expected at scattered places in upper Punjab (Lahore, Gujranwala, Sargodha, Faisalabad, Sahiwal divisions), Kashmir, while at isolated places in Hazara, Rawalpindi, Zhob, D.I.Khan divisions. Hot and dry weather is expected elsewhere in the country. Heavy rains may trigger landslides in Malakand, Hazara divisions, Gilgit Baltistan and Kashmir on Wednesday.

THURSDAY

18-04-2019

Mainly hot and dry weather is expected in most parts of the country. However, rain-thunderstorm is expected at isolated places in Kashmir and its adjoining hilly areas.

FRIDAY

19-04-2019

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

SATURDAY

20-04-2019

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

SUNDAY

21-04-2019

Mainly hot and dry weather is expected in most parts of the country, while very hot in Sindh. However, rain-thunderstorm is expected at isolated places in Kashmir and its adjoining hilly areas.

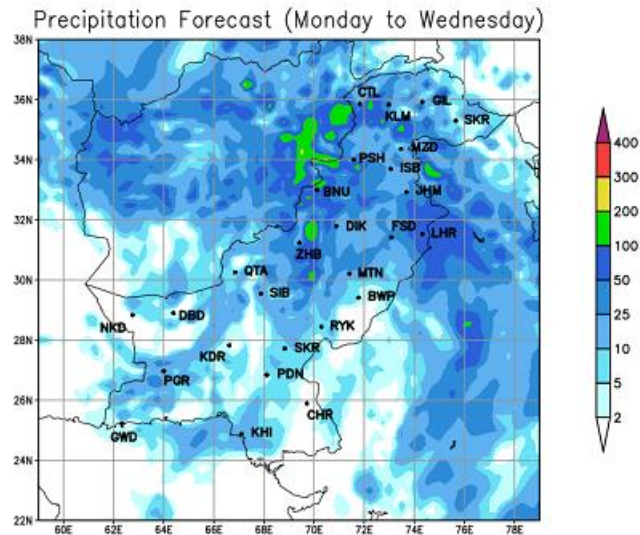
ADVISES FOR FARMERS

During the last week, light rainfall occurred at scattered places in GB and upper KP, while cold and dry weather prevailed in rest parts. This may continue with almost the same pattern in coming days as well. Keeping in view the expected weather conditions following advises are suggested for farming community.

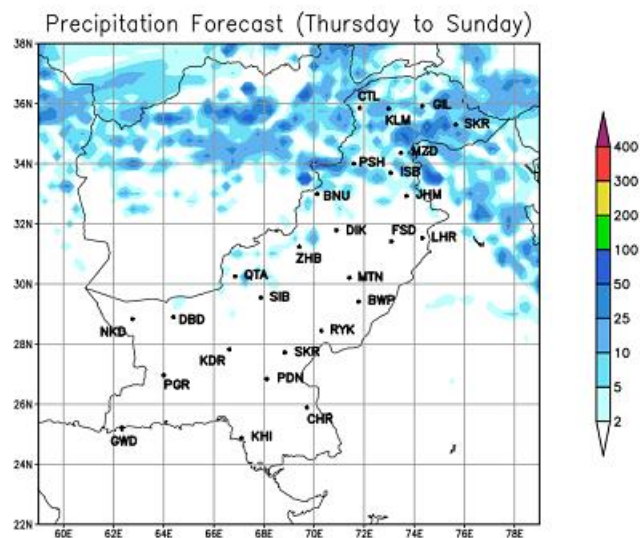
1. Farmers are advised to apply deep ploughing in the fields after harvested the Wheat crops.
2. Irrigate the crops where needed.
3. To obtain the possible yield of wheat crop, weather forecast should be considered before harvesting.

Precipitation Outlook from 15th April to 21st April, 2019

The outlook from 15th April to 17th April, 2019 shows that light to moderate rainfall is expected all over the country.



The outlook from 18th April to 21st April, 2019 shows that light to moderate rainfall is expected over scattered places in the upper half of the country.



National Weather Data of Selected Cities Weekly Data from (8th April to 14th 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	34.0	36.0	148.3	63	10.00	1.1	2.7	2.0	1.3
Faisalabad	34.6	36.0	157.0	54	3.40	2.3	2.6	0.9	1.0
Gawader	33.4	36.0	153.5	57	33.50	3.7	4.4	0.9	2.9
Gilgit	24.2	29.5	89.3	50	1.01	6.3	6.7	1.1	1.1
Kalam	16.3	22.5	39.1	76	59.10	6.4	7.0	0.0	0.6
Khuzdar	29.6	33.5	138.0	42	13.60	3.3	5.6	0.6	3.7
Lahore	34.1	35.6	163.9	47	1.12	4.1	3.0	2.0	3.3
Malam Jabba	12.9	18.0	***	68	23.50	6.3	5.1	4.0	2.9
Mangla	33.0	34.5	147.6	54	5.00	5.3	4.3	1.1	1.7
Multan (PBO)	34.5	37.2	159.3	50	13.30	3.1	4.0	3.7	5.1
Murree	19.1	22.1	65.7	65	49.01	4.3	5.3	0.9	1.3
Muzaffarabad	25.8	31.5	91.6	61	39.00	4.4	5.2	2.4	1.2
Nawabshah	31.5	34.0	114.8	57	6.03	4.4	6.6	0.3	1.1
Peshawar	38.0	26.0	86.4	54	29.80	6.4	6.0	2.5	2.8
Quetta	34.6	36.0	157	51	10.00	3.1	4.9	0.0	1.1
Rawalakot	38.6	40.0	168.3	40	0.00	0.4	1.9	0.9	1.1
Rawalpindi	20.3	22.3	***	45	1.70	7.0	5.3	0.0	3.0
Rohri	41.3	44.0	194.1	39	0.00	2.3	4.1	3.4	5.1
Skardu	40.0	41.5	182.3	52	0.00	0.4	1.1	0.9	1.7
Tandojam	39.2	43.0	182.3	59	4.00	2.8	3.1	2.8	3.1
Usta.M	27.2	35.0	107.5	56	34.00	1.6	4.7	4.0	4.7
Zhob	34.0	36.0	148.3	63	10.00	1.1	2.7	2.0	1.3

*** 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)