

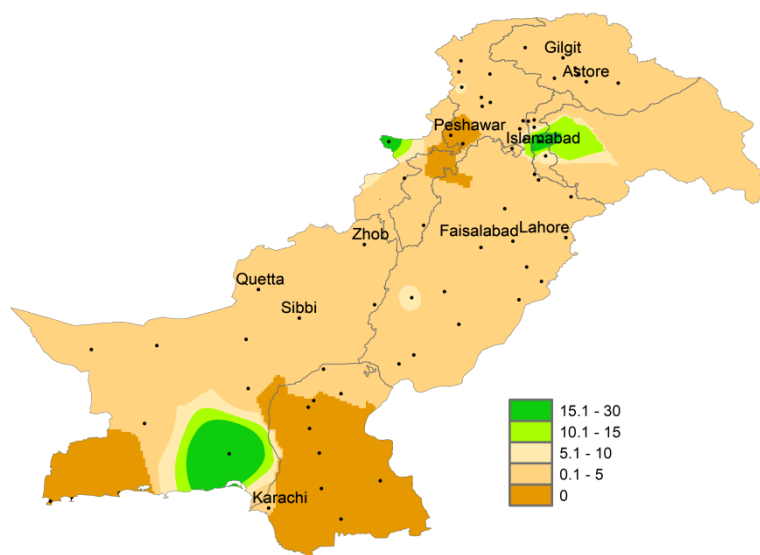
Weekly Weather and Crop Bulletin for Pakistan

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**Rainfall Distribution (mm) during the Previous
Week (6th May-12th May, 2019)**



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Highlights of Past Weather (6th May-12th May, 2019)

Mix trend day time temperatures were observed all over the country during the last week.

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

1. Light to moderate rainfall observed in Khyber Pakhtunkhwa, Gilgit Baltistan and Azad Kashmir.
2. Light Rainfall observed in Punjab and Balochistan except at a single station in Balochistan where moderate rainfall was observed.
3. Dry weather observed over Sindh except in two station where light rainfall occurred.

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Past Weather of Provinces (6th May-12th May, 2019)**Punjab**

Light rainfall observed in Punjab during the week. Weekly maximum and minimum temperatures recorded as 39.3°C & 22.8°C respectively. For the recent week on average 182.2 growing degree days were accumulated. Average relative humidity recorded as 37% and wind speed in the morning/evening recorded as 3.7/3.7 Knots. During the previous week the highest precipitation was recorded as 10.01 mm at Murree while maximum temperature was recorded as 45.2°C at D.G Khan.

Baluchistan

Light Rainfall observed in Balochistan except at a single station where moderate rainfall was observed during the week. Weekly maximum and minimum temperatures recorded as 35.2°C & 20.5°C respectively. For the recent week on average 157.3 growing degree days were accumulated. Average relative humidity recorded as 47% and wind speed in the morning/evening recorded as 2.3/6.2 Knots. During the previous week the highest precipitation was recorded as 29 mm at Lasbella 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 32.4°C & 15.6°C respectively. For the recent week on average 132.9 growing degree days were accumulated. Average relative humidity recorded as 49% and wind speed in the morning/evening recorded as 1.2/2.9 Knots. During the previous week the highest precipitation recorded as 18.0 mm at Parachinar while maximum temperature was recorded as 43.0°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

28.6°C & 12.6°C respectively. For the recent week on average 104.3 growing degree days were accumulated. Average relative humidity recorded as 37% and wind speed in the morning/evening recorded as 1.9/5.3 Knots. The highest precipitation recorded as 25.8 mm at Rawlakot while maximum temperature was recorded as 38.9°C at Kotli.

Sindh

Dry weather observed over Sindh except in two station where light rainfall occurred during the week. Weekly maximum and minimum temperatures recorded as 40.8°C & 24.9°C respectively. For the recent week, on average 193.2 growing degree days were accumulated. Average relative humidity recorded as 50% and wind speed in the morning/evening recorded as 4.3/4.5 Knots. 0.01 mm (Trace) rainfall was recorded at Jacobabad and Sukkur while maximum temperature was recorded as 48.0°C at Jacobabad.

Past Weather for Major Agricultural Plains (6th May-12th May, 2019)

Rawalpindi (Potohar region)

2.0 mm rainfall reported from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 1.1/1.1 Oktas while, average relative humidity observed as 40%. Mean day time temperature recorded as 36.6°C & for the recent week 157.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.3/0.6 Knots.

Faisalabad (Central Punjab)

0.01 mm (Trace) rainfall was reported from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 1.4/0.7 Oktas while, average relative humidity observed as 37%. Mean day time temperature recorded as 40.1°C & for the recent week 187.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.6/1.1 Knots.

Tandojam (Lower Sindh)

Dry weather reported from Tandojam during the week; however, cloudiness in the morning/evening recorded as 0/0.6 Oktas while, average relative humidity observed as 63%. Mean day time temperature recorded as 38.5°C & for the recent week 185.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 3.8/5.1 Knots.

Usta Muhammad (Eastern Baluchistan)

Dry weather reported from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded as 0.4/0.5 Oktas while, average relative humidity observed as 25%. Mean day time temperature recorded as 42.0°C & for the recent week 208.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.8/6 Knots.

Quetta (Northern Baluchistan)

Dry weather reported from Quetta during the week; however, cloudiness in the morning/evening recorded as 2.1/3.9 Oktas while, average relative humidity observed as 20%. Mean day time temperature recorded as 38.0°C & for the recent

week 116.6 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.3/3.6 Knots.

Past Weather for Sub-Regional Agricultural Plains (6th May-12th May, 2019)

Multan

0.31 mm rainfall reported from Multan during the week; however, cloudiness in the morning/evening recorded as 2.7/3.1 Oktas while, average relative humidity observed as 31%. Mean day time temperature recorded as 40.8°C & for the recent week 197 growing degree days accumulated. Wind speed recorded in the morning/evening as 6.3/7.1 Knots.

Lahore

0.01 mm rainfall was reported from Lahore during the week; however, however, cloudiness in the morning/evening recorded as 1.1/1.1 Oktas while, average relative humidity observed as 33%. Mean day time temperature recorded as 39.2°C & for the recent week 188.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.1/2.3 Knots.

Zhob

Dry weather reported was reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 0.4/3.3 Oktas while, average relative humidity observed as 29%. Mean day time temperature recorded as 32.7°C & for the recent week 141.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 4.7/8.7 Knots.

Murree

10.01 mm rainfall was reported from Murree during the week; however, cloudiness in the morning/evening recorded as 2.9/2.0 Oktas while, average relative humidity observed as 48%. Mean day time temperature recorded as 23.0° C & for the recent week 94.9 growing degree days accumulated. Wind speed recorded in the morning/evening as 3.7/1.7 Knots.

D.I. Khan

1.01 mm rainfall was reported from D.I. Khan during the week; however, cloudiness in the morning/evening recorded as 1.6/0.9 Oktas while, average relative humidity observed as 48%. Mean day time temperature recorded as 40.9°C & for the recent week 188.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.6/1.7 Knots.

Peshawar

Dry weather reported from Peshawar during the week; however, cloudiness in the morning/evening recorded as 1.3/6.1 Oktas while, average relative humidity observed as 51%. Mean day time temperature recorded as 36.4°C & for the recent week 167.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.3/2.6 Knots.

Kalam

Dry weather reported from Kalam during the week; however, cloudiness in the morning/evening recorded as 0.7/4.0 Oktas while, average relative humidity observed as 43%. Mean day time temperature recorded as 24.4°C & for the recent week 73.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/3.4 Knots

Gilgit

0.90 mm rainfall was reported from Gilgit during the week. However, cloudiness in the morning/evening recorded as 3.0/5.0 Oktas while, average relative humidity observed as 36%. Mean day time temperature recorded as 30.9°C & for the recent week 110.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.6/4.3 Knots.

Skardu

Dry weather reported from Skardu during the week; however, cloudiness in the morning/evening recorded as 2.3/5.1 Oktas while, average relative humidity observed as 31%. Mean day time temperature recorded as 23.9°C & for the recent week 77.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 01.0/8.9 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)

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

Lower Sindh (Tandojam)

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

Cotton: Good, Third true leaf stage.

Northern Baluchistan (Quetta)

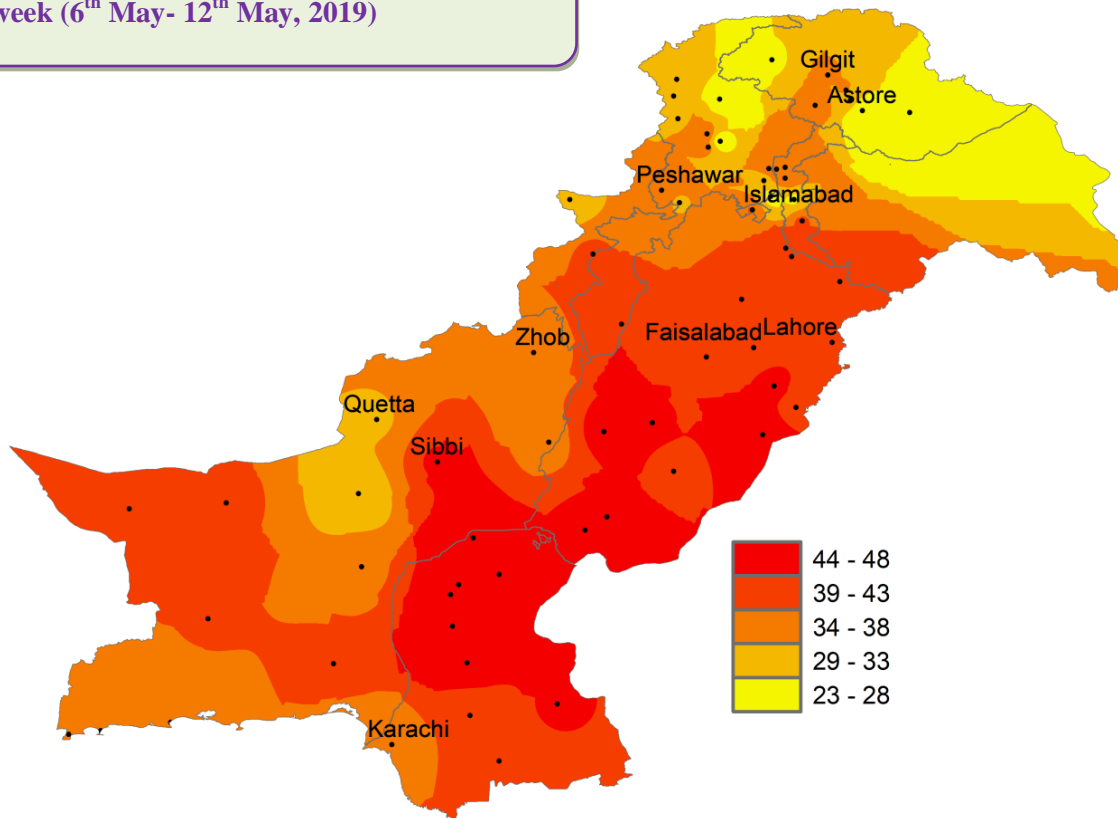
There is presently no crop grown in the fields of RAMC Quetta.

Eastern Baluchistan (Usta Muhammad)

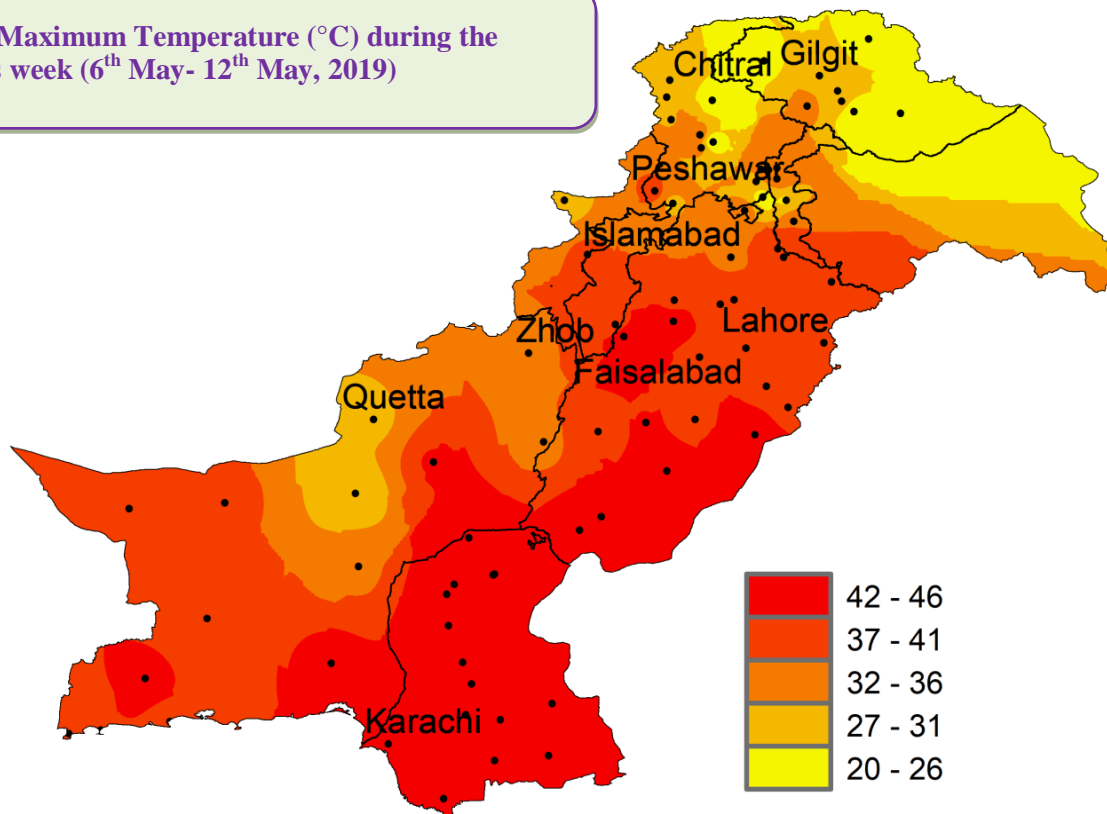
Presently wheat crop is sown in the fields of RAMC Usta Muhammad.

Wheat: Good, Harvested.

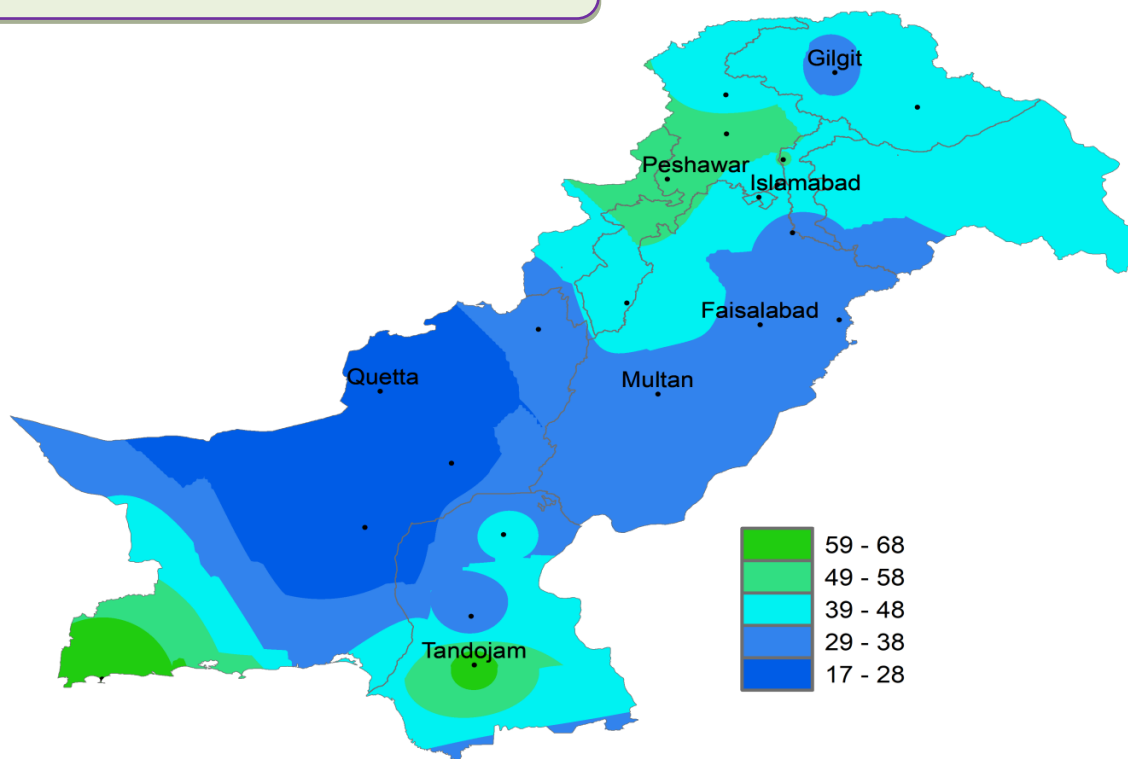
Mean Maximum temperature (°C) during the Previous week (6th May- 12th May, 2019)



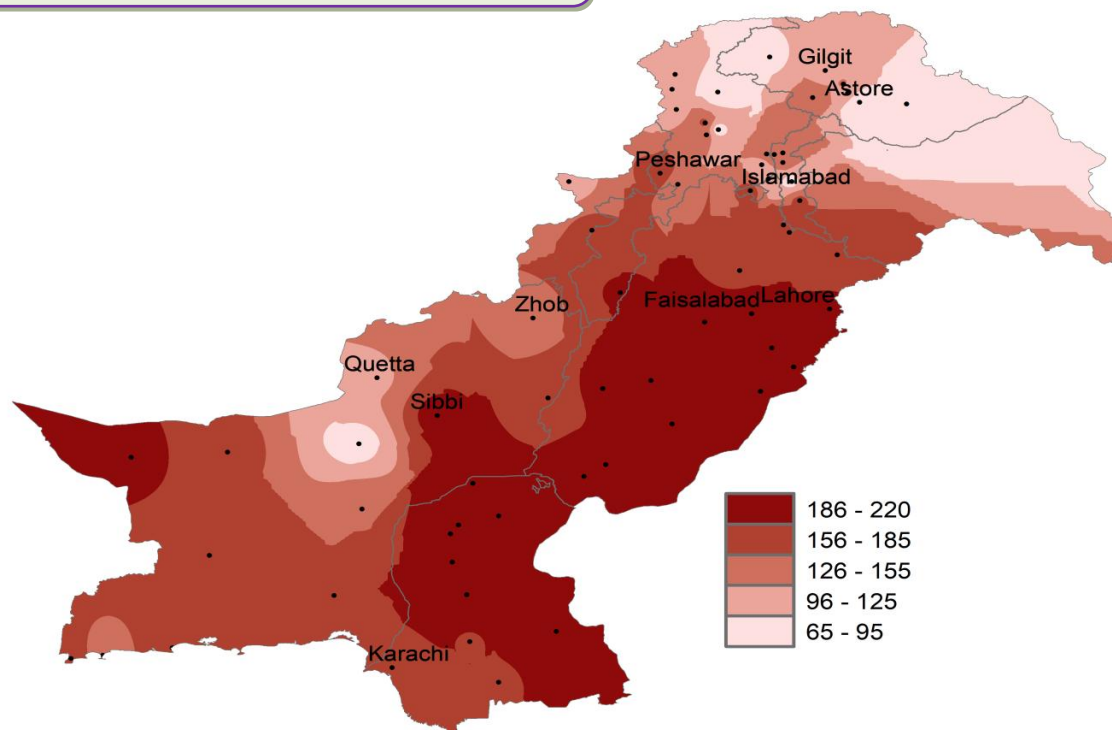
Highest Maximum Temperature (°C) during the Previous week (6th May- 12th May, 2019)



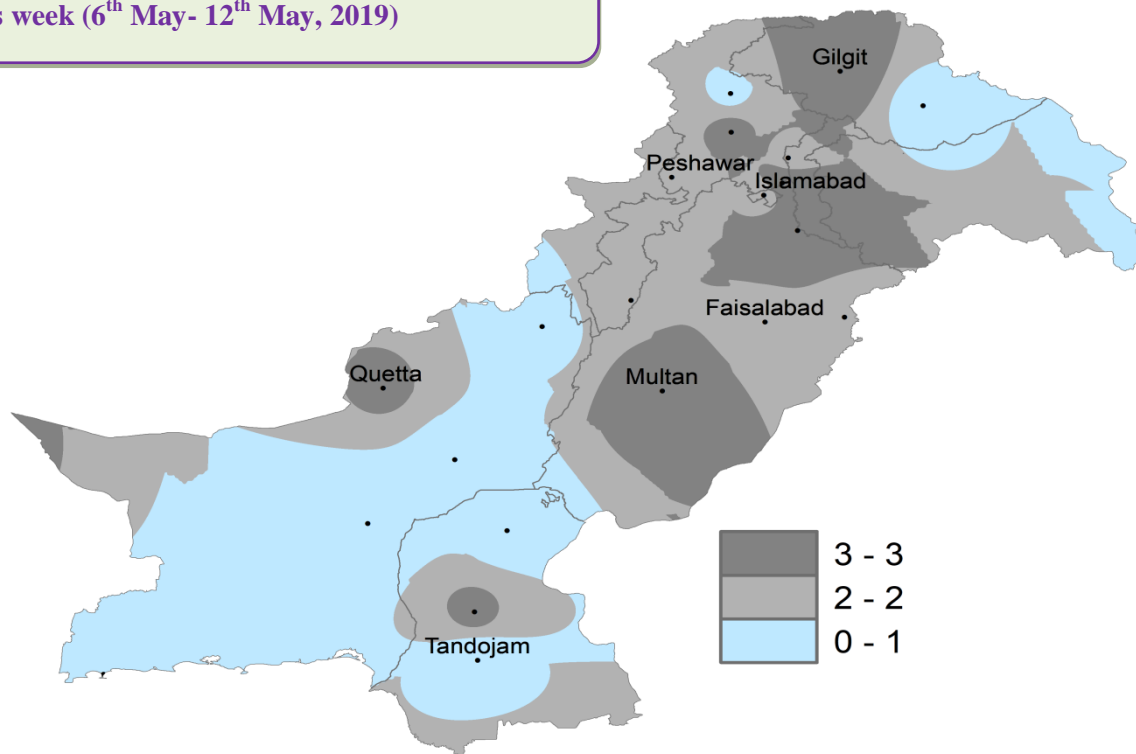
Mean Relative Humidity (%) during the
Previous week (6th May- 12th May, 2019)



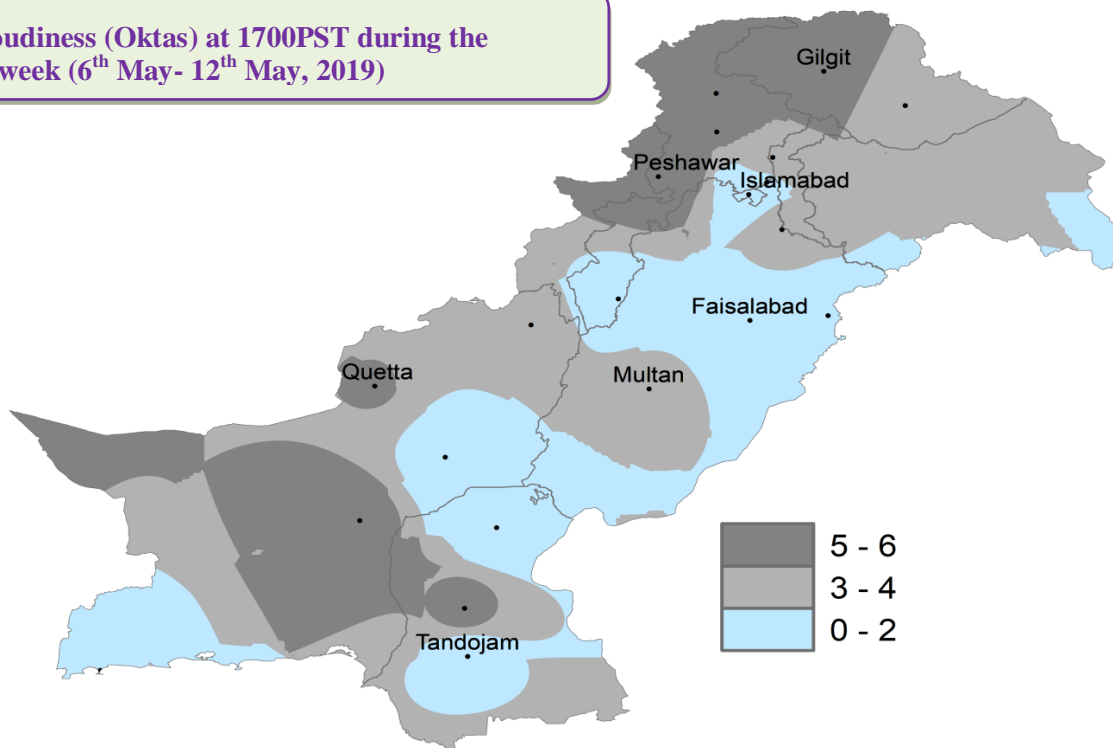
Total Growing Degree Days accumulated during the
Previous week (6th May- 12th May, 2019)



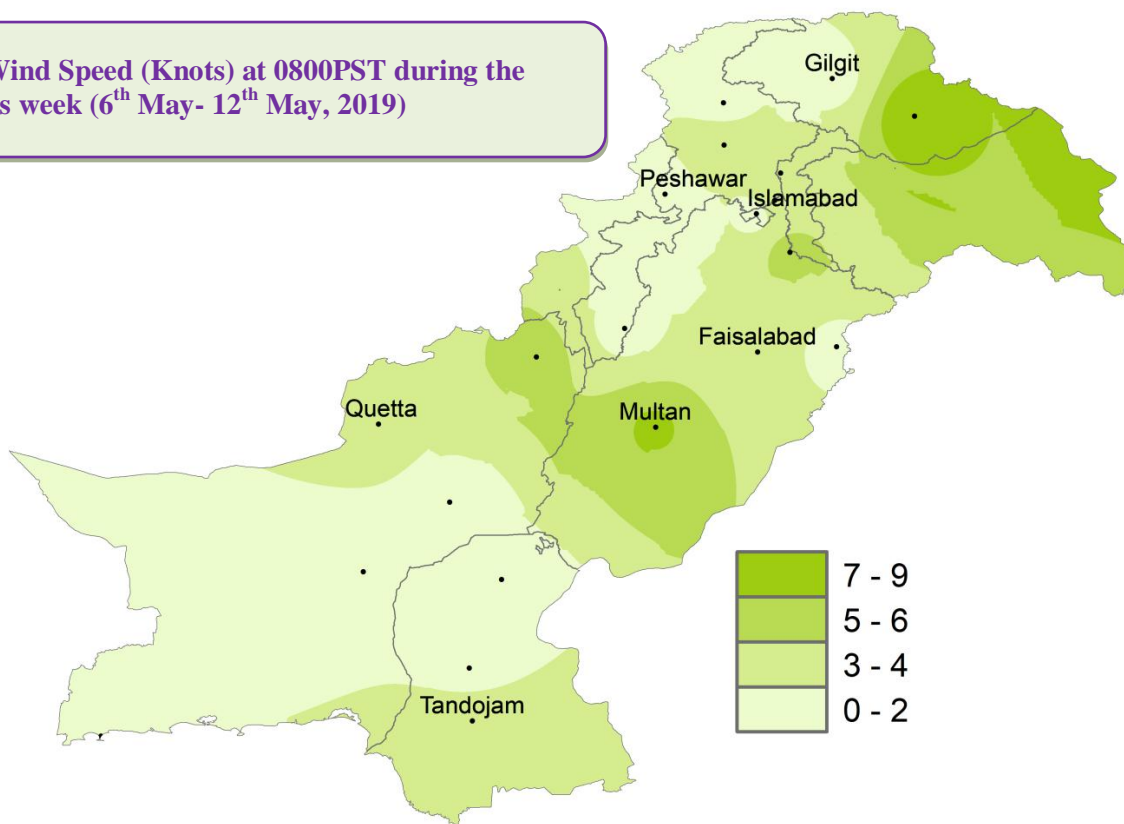
Mean Cloudiness (Oktas) at 0800PST during the Previous week (6th May- 12th May, 2019)



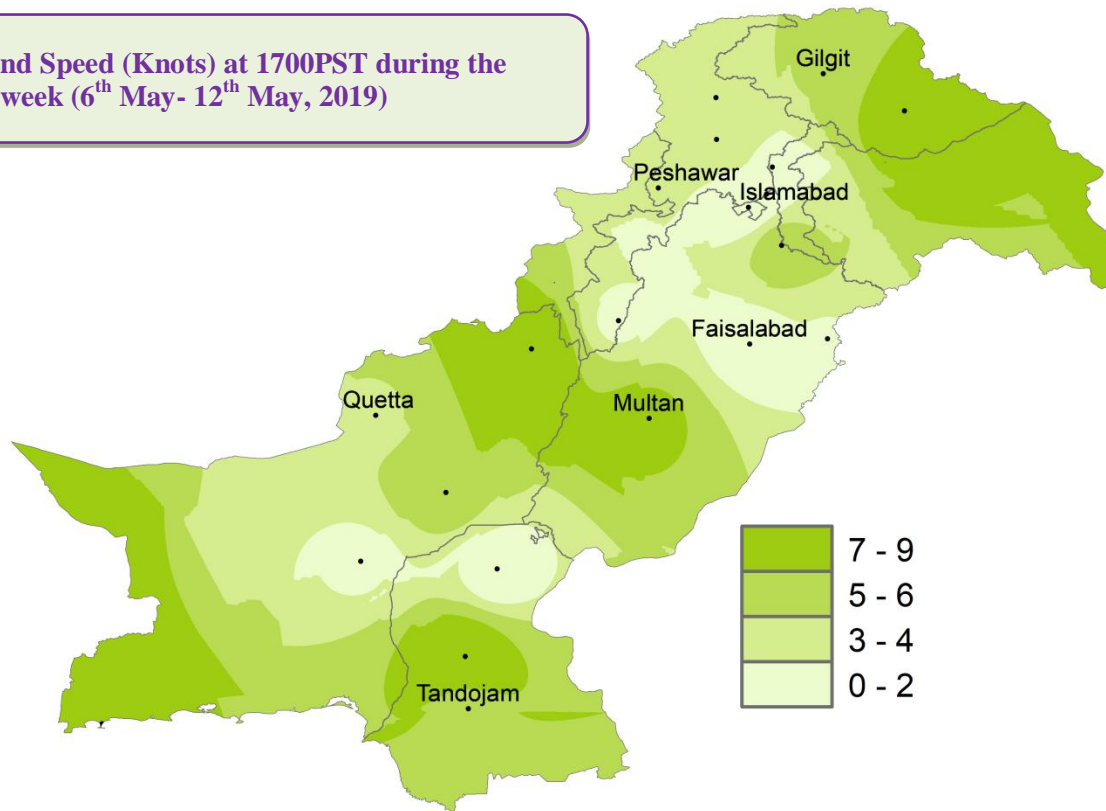
Mean Cloudiness (Oktas) at 1700PST during the Previous week (6th May- 12th May, 2019)



Mean Wind Speed (Knots) at 0800PST during the Previous week (6th May- 12th May, 2019)



Mean Wind Speed (Knots) at 1700PST during the Previous week (6th May- 12th May, 2019)



Weekly Weather Advisory for Farmers **(13th to 19th May, 2019)**

Continental air is prevailing in most parts of the country. A shallow westerly wave is affecting upper and central parts of the country and likely to intensify on Wednesday.

MONDAY

13-05-2019

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 is expected at isolated places in Kohat, Bannu, D.I Khan, Sargodha, Faisalabad, Sahiwal, Lahore, Gujranwala, Rawalpindi divisions, Islamabad, Gilgit Baltistan and Kashmir.

TUESDAY

14-05-2019

Mainly hot and dry weather is expected in most parts of the country, while very hot in south Punjab and Sindh during day time. However, dust-thunderstorm/rain is expected at isolated places in Quetta, Kalat, Makran, Multan, D.G Khan, Bahawalpur, Sukkur, Larkana, Bannu, D.I Khan, Sargodha, Faisalabad divisions and Kashmir.

WEDNESDAY

15-05-2019

Mainly hot and dry weather is expected in most parts of the country, while very hot in south Punjab and Sindh during day time. Dust thunderstorm/rain with gusty winds is expected at scattered places in Kohat, Bannu, D I Khan, D G Khan divisions while at isolated places in upper Khyber Pakhtunkhwa (Malakand, Hazara, Mardan, Peshawar divisions), Islamabad, Punjab (Rawalpindi, Gujranwala, Lahore, Sargodha, Faisalabad, Sahiwal, Multan, Bahawalpur divisions) and Kashmir.

THURSDAY

16-05-2019

Dust thunderstorm/rain with gusty winds is expected at scattered places in Kalat, Makran, Zhob, D G Khan, Multan, Bahawalpur, Sukkur, Larkana, Sahiwal, Faisalabad, Hazara divisions

and Kashmir while at isolated places in Malakand, Peshawar, Kohat, Bannu, D I Khan, Karachi, Hyderabad, Rawalpindi, Gujranwala, Lahore, Sargodha divisions, Islamabad and Gilgit-Baltistan.

FRIDAY

17-05-2019

Dust thunderstorm/rain with gusty winds is expected at scattered places in Khyber Pakhtunkhwa, Islamabad, Upper Punjab, Kashmir and Gilgit Baltistan while at isolated places in Kalat, Makran, Sukkur, Larkana and Bahawalpur divisions.

SATURDAY

18-05-2019

Mainly hot and dry weather is expected in most parts of the country. Dust thunderstorm/rain with gusty winds is expected at isolated places in Malakand, Hazara divisions, Islamabad, Kashmir and Gilgit Baltistan.

SUNDAY

19-05-2019

Mainly hot and dry weather is expected in most parts of the country. Dust thunderstorm/rain with gusty winds is expected at isolated places in Gilgit Baltistan, Kashmir and its adjoining hilly areas.

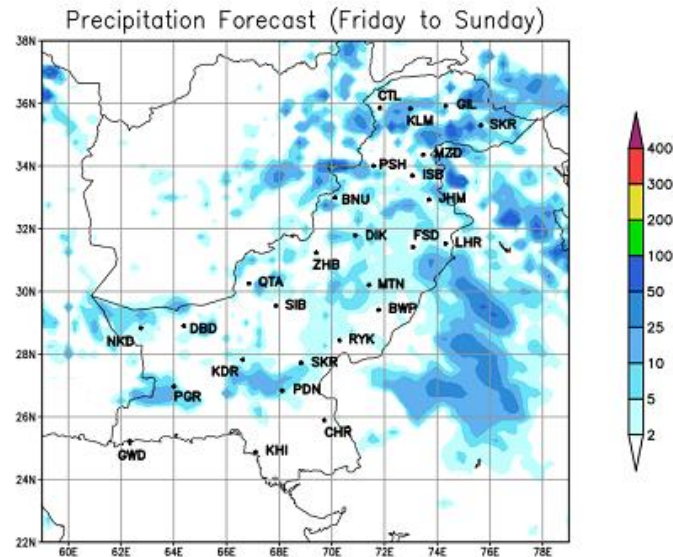
ADVISORY FOR FARMERS

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

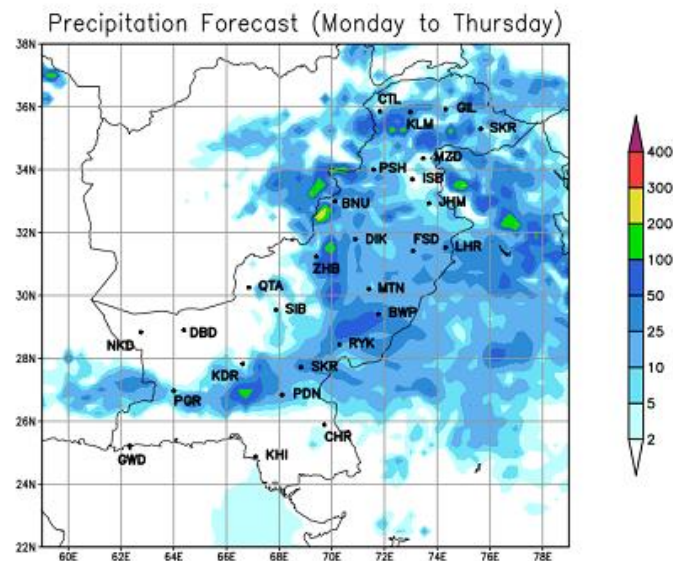
1. Farmers are advised to apply deep ploughing in the fields after harvested the Wheat crops.
2. To obtain the possible yield of wheat crop, weather forecast should be considered before harvesting.

Precipitation Outlook from 13th to 19th May, 2019

The outlook from 13th May to 15th May, 2019 shows that light to moderate rainfall is expected in isolated places all over the country.



The outlook from 16th May to 19th May, 2019 shows that light to moderate rainfall is expected at almost all over the country except lower part of Sindh and western part of Balochistan while heavy rainfall is expected at isolated places of Azad Kashmir and south western KPK.



National Weather Data of Selected Cities Weekly Data from (6th May to 12th May, 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	40.9	43.0	188.5	48	1.01	1.6	0.9	0.6	1.7
Faisalabad	40.1	43.0	187.3	37	0.01	1.4	0.7	1.6	1.1
Gawader	35.3	38.0	143.3	63	0.00	0.6	0.4	0.0	7.7
Gilgit	30.9	33.5	110.0	36	0.90	3.0	5.0	0.6	4.3
Kalam	24.4	26.0	73.0	43	0.00	0.7	4.0	0.0	3.4
Khuzdar	34.3	35.5	149.5	17	0.00	0.0	5.1	0.9	1.7
Lahore	39.2	41.5	188.8	33	0.01	1.1	1.1	1.1	2.3
Malam Jabba	20.9	23.5	76.3	55	2.50	2.3	3.9	4.0	4.0
Mangla	38.1	41.3	171.9	33	4.20	3.4	3.6	4.9	6.0
Multan (PBO)	40.8	43.3	197.0	31	0.31	2.7	3.1	6.3	7.1
Murree	23.0	26.1	94.9	48	10.01	2.9	2.0	3.7	1.7
Muzaffarabad	32.7	34.4	133.9	48	2.60	1.4	3.7	2.1	2.1
Nawabshah	43.6	45.5	206.0	47	0.00	0.4	2.4	7.7	8.0
Peshawar	36.4	38.0	167.5	51	0.00	1.3	6.1	0.3	2.6
Quetta	38.0	30.4	116.6	20	0.00	2.1	3.9	2.3	3.6
Rawalpindi	36.6	38.3	157.8	40	2.00	1.1	1.1	0.3	0.6
Rohri	42.4	44.0	201.0	40	0.00	0.4	0.4	1.4	0.3
Skardu	23.9	26.8	77.0	31	0.00	2.3	5.1	0.0	8.9
Tandojam	38.5	40.0	185.8	63	0.00	0.0	0.6	3.8	5.1
Usta.M	42.0	44.0	208.0	25	0.00	0.4	0.5	0.8	6.0
Zhob	30.7	33.5	130.8	42	0.00	0.3	1.6	4.7	5.9

*** 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)