

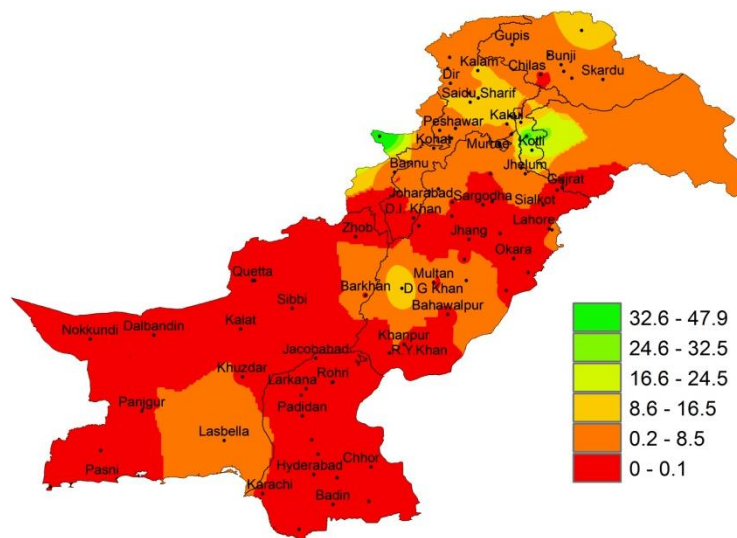
Weekly Weather and Crop Bulletin for Pakistan

**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 (24th April to 1st May, 2017)**



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Highlights of Past Weather (from 24th April to 1st May, 2017)

Slightly above normal day temperatures reported from most parts of the country.

Province wise distribution of rainfall reported as follows:

- Light to moderate rainfall reported from most of the places in Punjab, Khyber Pakhtunkhwa (KP), Gilgit-Baltistan (GB) and Kashmir.
- Light rainfall reported from a single place “Lasbella” of Balochistan.
- Dry weather was reported from Sindh.

Patron-in-Chief: Dr. Ghulam Rasul (Director General)

Editor-in-Chief: Dr. Khalid M. Malik (Director)

Editor: Dr. Dildar Kazmi (Meteorologist)

Past Weather of Provinces (from 24th April to 1st May, 2017)

Punjab

Light to moderate rainfall reported from most parts of Punjab during the week. Weekly maximum and minimum temperatures recorded as 35.8°C & 20.3°C respectively. For the recent week on average 161.9 growing degree days were accumulated by the end of the last week. Average relative humidity recorded as 43% and wind speed in the morning/evening recorded as 2.4/3.0 Knots. During the previous week the highest amount of rainfall was recorded as 14.0mm at D.G. Khan & highest maximum temperature was recorded as 42.4°C at Rahim Yar Khan.

Sindh

Dry weather reported from Sindh during the week. Weekly maximum and minimum temperatures recorded as 40.4°C & 23.9°C respectively. For the recent week, on average 190.6 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 41% and wind speed in the morning/evening recorded as 5.2/6.8 Knots. During the previous week the highest maximum temperature was recorded as 47.0°C at Jacobabad.

Khyber Pakhtunkhwa

Light to moderate rainfall reported from most of the places of Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 28.5°C & 13.3°C respectively. For the recent week on average 111.1 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 51% and wind speed in the morning/evening recorded as 1.0/3.2Knots. During the previous week the highest amount of rainfall was recorded as 48.0 mm at Parachinar & highest maximum temperature was recorded as 39.5°C at D.I.Khan.

Balochistan

Light rainfall reported from a single place “Lasbella” of Balochistan during the week. Weekly maximum and minimum temperatures recorded as 34.6°C & 18.8°C respectively. For the recent week on average 151.4 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 39% and wind speed in the morning/evening recorded as 1.6/6.3 Knots. During the previous week the highest amount of rainfall was recorded as 5.0mm at Lasbella & highest maximum temperature was recorded as 44.0°C at Lasbella.

Gilgit-Baltistan and Azad Jammu & Kashmir

Light to moderate rainfall reported from many places of Gilgit-Baltistan& Kashmir during the week. Weekly maximum and minimum temperatures recorded as 23.7°C & 10.4°C respectively. For the recent week on average 84.4 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 53% and wind speed in the morning/evening recorded as 1.0/3.7 Knots. During the previous week the highest amount of rainfall was recorded as 35.6 mm at Rawalakot & highest maximum temperature was recorded as 33.9°C at Kotli.

**Past Weather for Major Agricultural Plains
(from 24th April to 1st May, 2017)****Rawalpindi (Potohar region)**

Rainfall reported as 22.5 mm from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 2.9/2.4 Oktas while, average relative humidity observed as 52%. Mean day time temperature recorded as 32.2°C & for the recent week 138.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.6/1.6 Knots.

Faisalabad (Central Punjab)

Dry weather reported from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 0.7/1.6 Oktas while, average relative humidity observed as 40%. Mean day time temperature recorded as 36.8°C & for the recent week 169.4 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.6/1.0 Knots.

Tandojam (Lower Sindh)

Dry weather reported from Tandojam during the week; however, cloudiness in the morning/evening recorded as 0.0/0.0 Oktas while, average relative humidity observed as 53%. Mean day time temperature recorded as 38.9°C & for the recent week 178.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.1/2.5 Knots.

Usta Muhammad (Eastern Balochistan)

Dry weather reported from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded 0.0/0.0 Oktas while, average relative humidity observed as 32%. Mean day time temperature recorded as 47.9°C & for the recent week 199.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.6/6.3 Knots.

Quetta (Northern Baluchistan)

Dry weather reported from Quetta during the week; however, cloudiness in the morning/evening recorded as 0.0/0.4 Oktas while, average relative humidity observed as 16%. Mean day time temperature recorded as 26.5°C & for the recent week 188.2 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.6/4.2 Knots.

Past Weather for Sub-Regional Agricultural Plains (from 24th April to 1st May, 2017)**Multan**

Rainfall reported as 0.01 mm from Multan during the week; however, cloudiness in the morning/evening recorded as 0.1/0.9 Oktas while, average relative humidity observed as 38%. Mean day time temperature recorded as 37.0°C & for the recent week 175.9 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 3.1/4.3 Knots.

Lahore

Rainfall reported as 0.21 mm from Lahore during the week; however, cloudiness in the morning/evening recorded as 0.6/0.4 Oktas while, average relative humidity observed as 38%. Mean day time temperature recorded as 36.1°C & for the recent week 170.4 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 3.1/2.6 Knots.

Zhob

Dry weather reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 0.0/2.7 Oktas while, average relative humidity observed as 32%. Mean day time temperature recorded as 30.7°C & for the recent week 131.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 5.0/7.9 Knots.

Murree

Rainfall reported as 7.40 mm from Murree during the week; however, cloudiness in the morning/evening recorded as 2.3/4.1 Oktas while, average relative humidity observed as 60%. Mean day time temperature recorded as 19.5°C & for the recent week 66.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.6/0.9 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 43%. Mean day time temperature recorded as 37.4°C & for the recent week 168.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.6/0.9 Knots.

Peshawar

Rainfall reported as 1.0 mm from Peshawar during the week; however, cloudiness in the morning/evening recorded as 2.6/3.9 Oktas while, average relative humidity observed as 49%. Mean day time temperature recorded as 33.0°C & for the recent week 148.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.1/2.0 Knots.

Kalam

Rainfall reported as 9.0 mm from Kalam during the week; however, cloudiness in the morning/evening recorded as 1.6/3.6 Oktas while, average relative humidity observed as 52%. Mean day time temperature recorded as 20.0°C & for the recent week 52.2 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.9/2.3 Knots.

Gilgit

Rainfall reported as 2.81 mm from Gilgit during the week; However, cloudiness in the morning/evening recorded as 5.1/7.0 Oktas while, average relative humidity observed as 52%. Mean day time temperature recorded as 23.6°C & for the recent week 80.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.0/5.7 Knots.

Skardu

Rainfall reported as 1.01 mm from Skardu during the week; however, cloudiness in the morning/evening recorded as 4.7/5.9 Oktas while, average relative humidity observed as 51%. Mean day time temperature recorded as 19.9°C & for the recent week 58.4 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/1.7 Knots.

Crop Situation for Major Agricultural Plains
(Based on data from Regional Agromet Centres)

Potohar Region (Rawalpindi)

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

Central Punjab (Faisalabad)

Wheat crop has been harvested on 30th April, 2017.

Lower Sindh (Tandojam)

There is presently one crop (irrigated conditions) grown in the fields of RAMC Tandojam.

Cotton (HH-906): Good condition, *Germination* stage.

Northern Balochistan (Quetta)

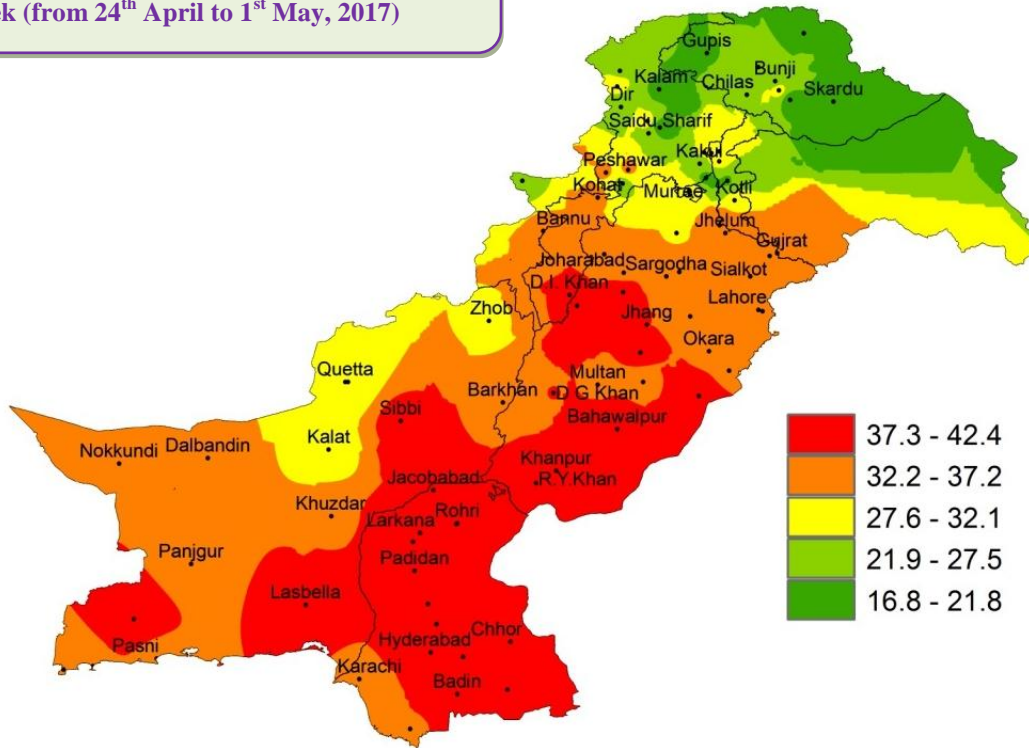
There is presently one crop (irrigated conditions) grown in the fields of RAMC Quetta.

Wheat (Local white): Good condition, *Milk Maturity* stage.

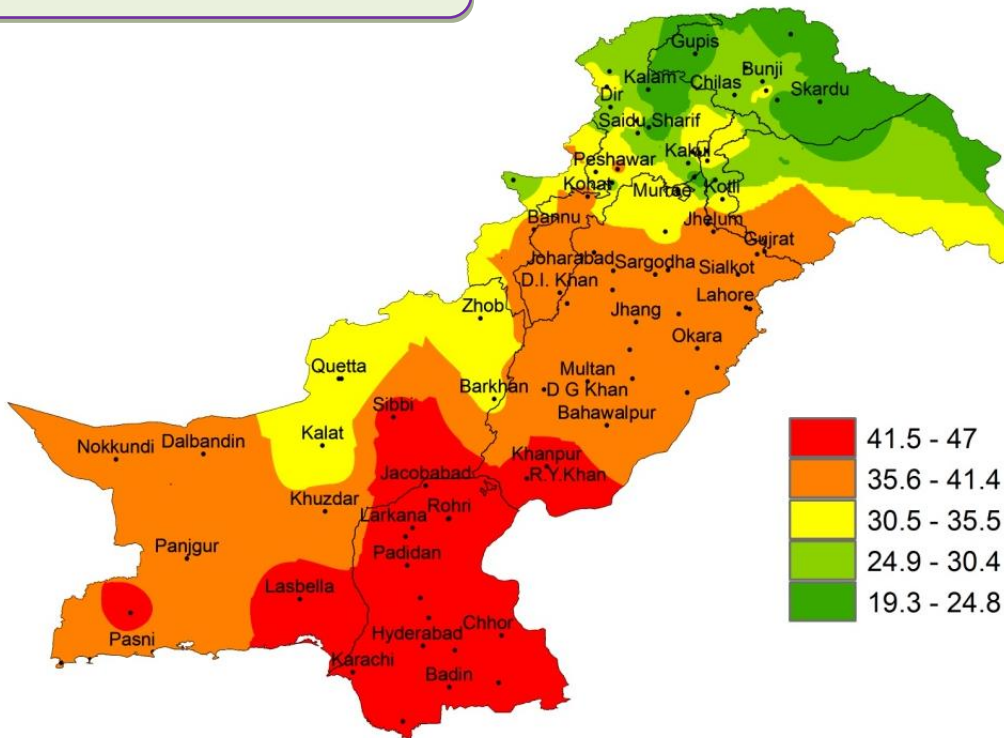
Eastern Balochistan (Usta Muhammad)

Land has been prepared for new crop.

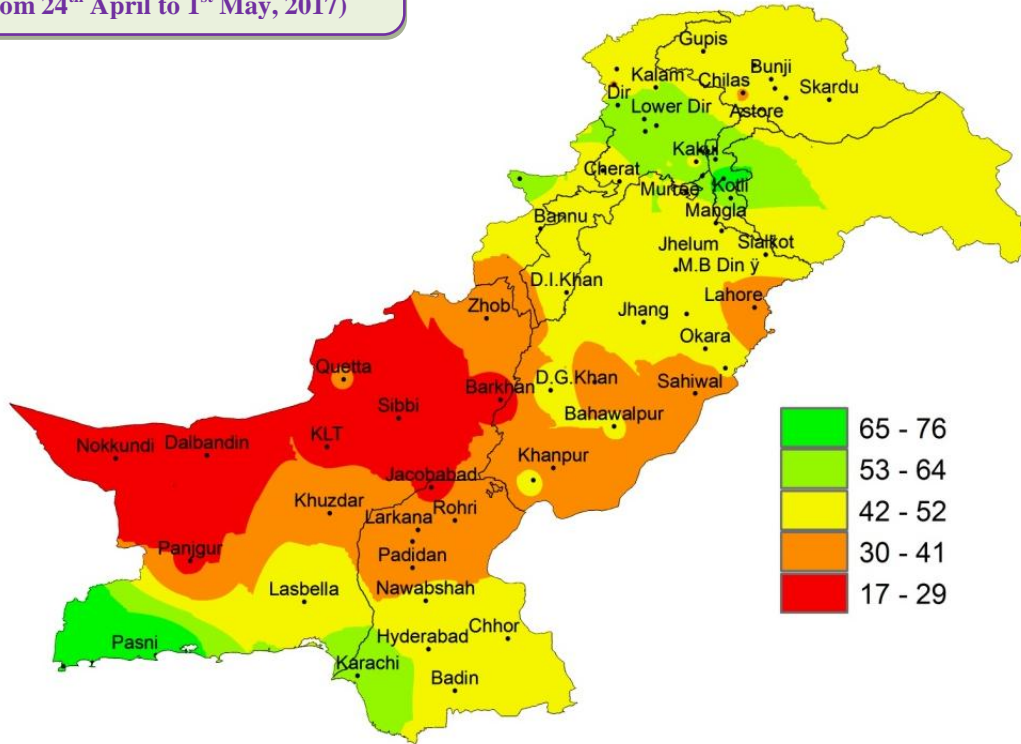
Mean Maximum Temperature (°C) during the Previous week (from 24th April to 1st May, 2017)



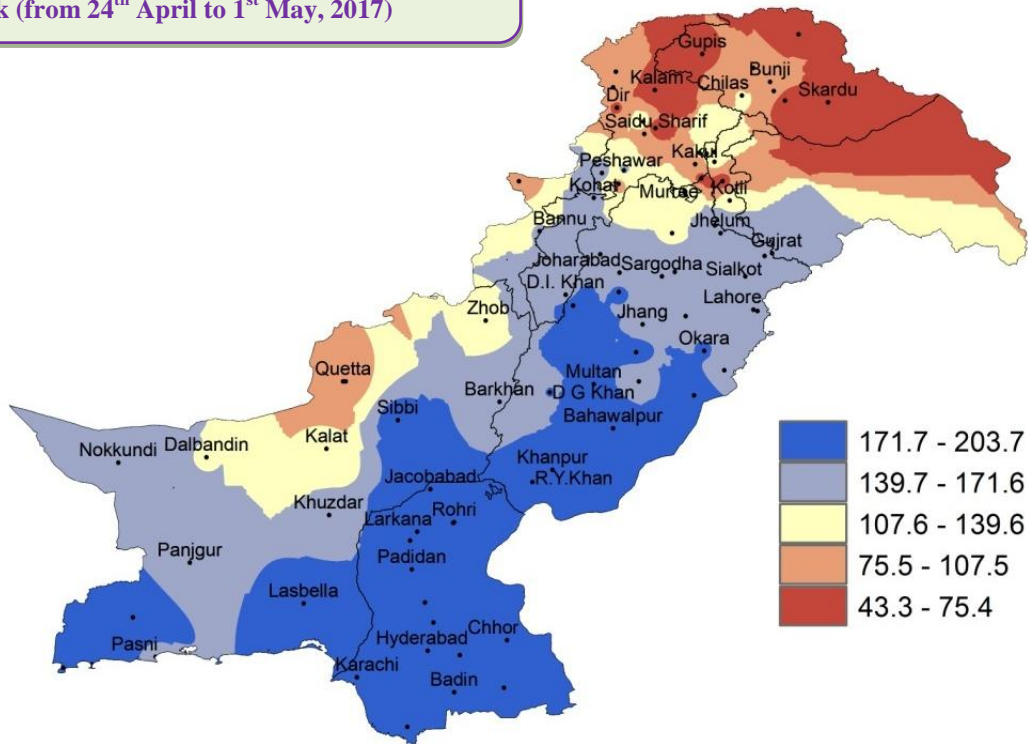
Highest maximum Temperature (°C) during the Previous week (from 24th April to 1st May, 2017)



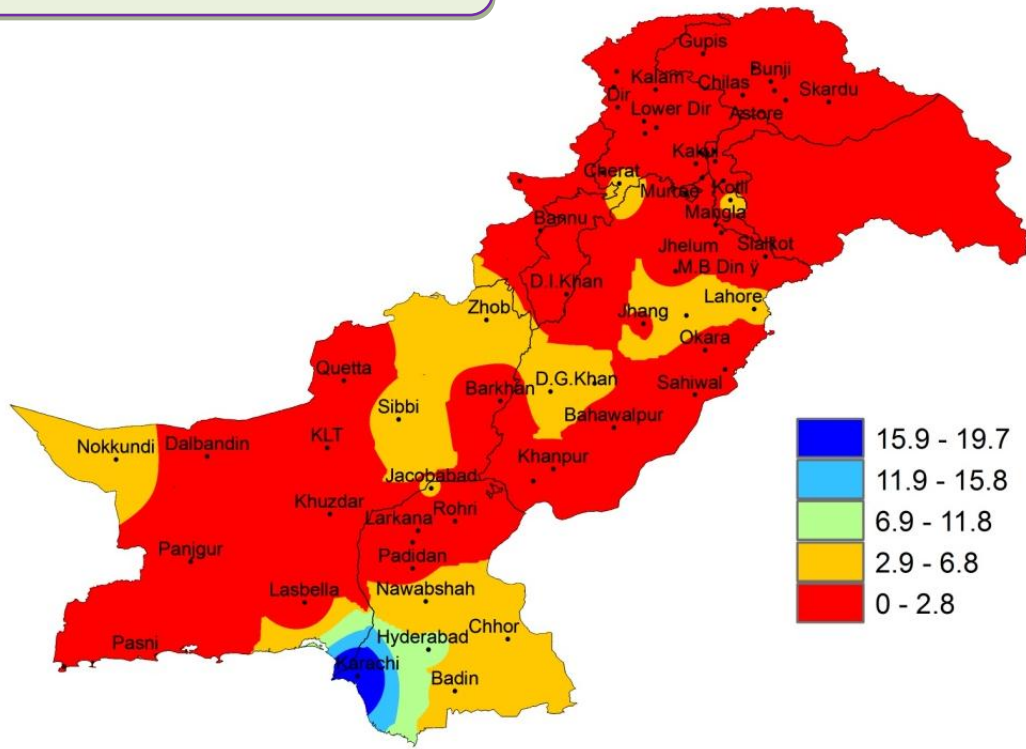
Mean Relative Humidity (%) during the Previous week (from 24th April to 1st May, 2017)



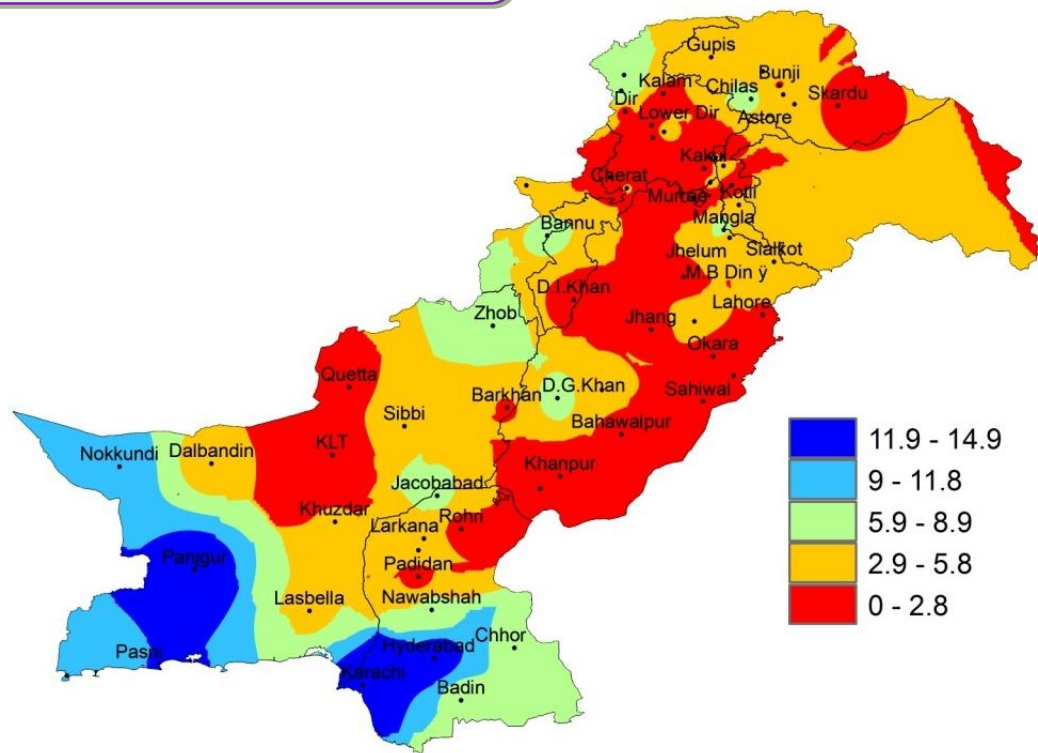
Total Growing Degree Days accumulated during the Previous week (from 24th April to 1st May, 2017)



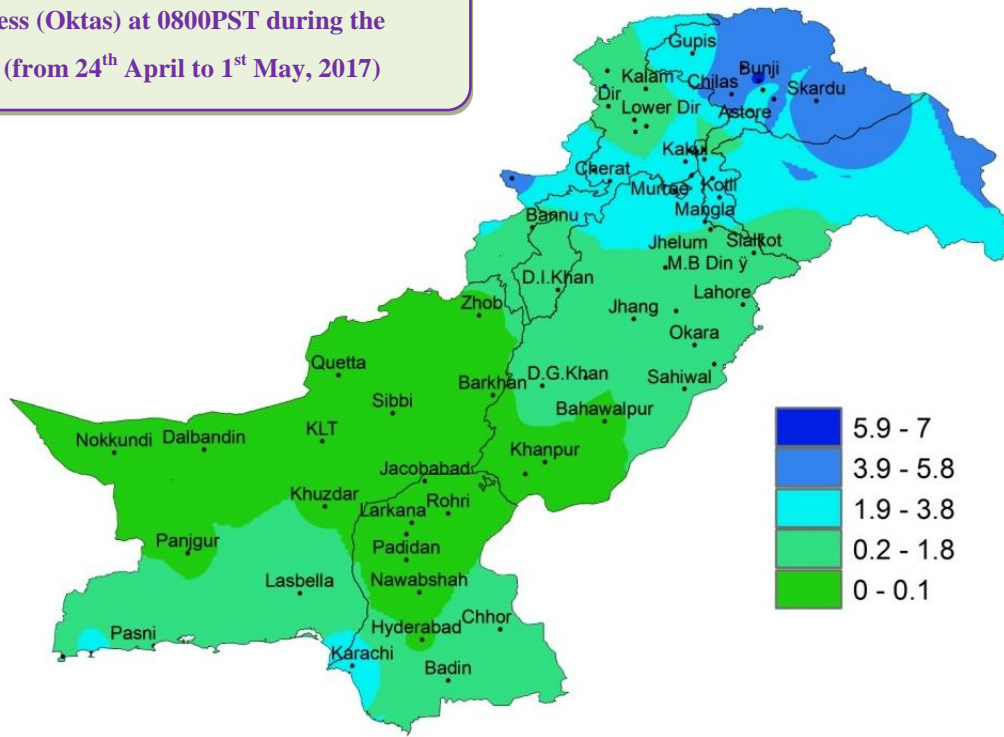
Mean Wind Speed (Knots) at 0800PST during the Previous week (from 24th April to 1st May, 2017)



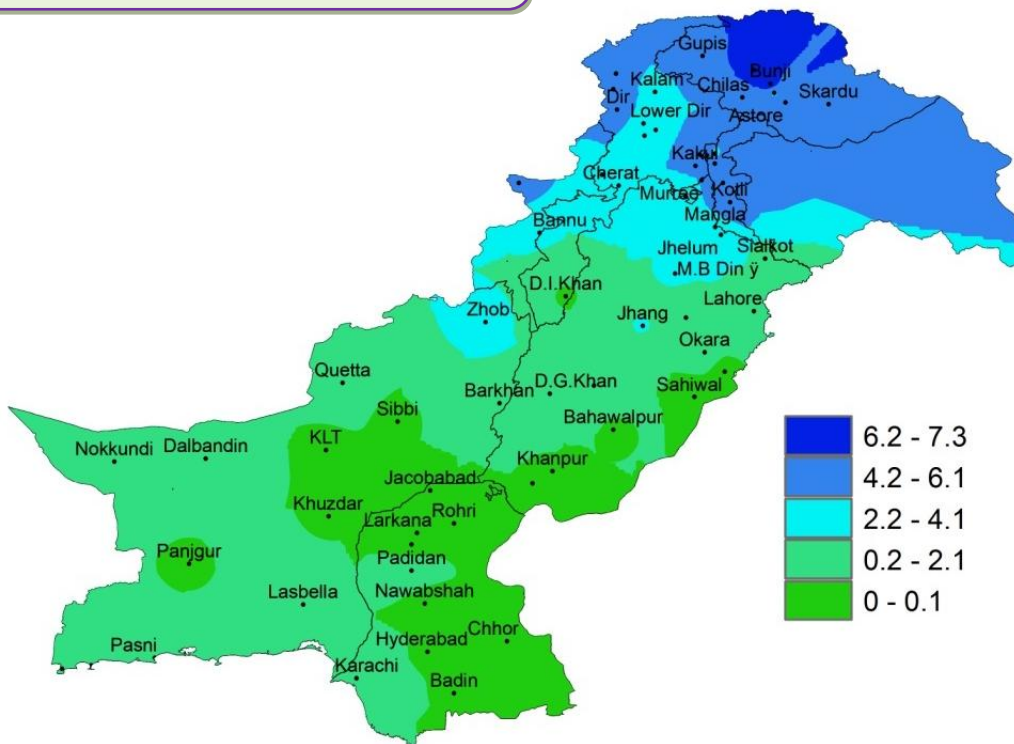
Mean Wind Speed (Knots) at 1700PST during the Previous week (from 24th April to 1st May, 2017)



Mean Cloudiness (Oktas) at 0800PST during the Previous week (from 24th April to 1st May, 2017)



Mean Cloudiness (Oktas) at 1700PST during the Previous week (from 24th April to 1st May, 2017)



Weekly Weather Advisory for Farmers**(From 2nd May to 8th May, 2017)**

A shallow westerly wave is affecting upper and central parts of the country and likely to persist during next 48 hours. Another shallow westerly wave is likely to enter the country during the weekend.

TUESDAY**02-05-2017**

Mostly partly cloudy and dry weather is expected in most parts of the country. However, dust-thunderstorm/light rain with gusty winds is expected at isolated places in Quetta, Zhob, Makran, Malakand, Hazara, Mardan, Multan, Sargodha, D.G. Khan, D.I Khan, Rawalpindi divisions, Islamabad, upper FATA and Kashmir.

WEDNESDAY**03-05-2017**

Mostly partly cloudy and dry weather is expected in most parts of the country. However, dust-thunderstorm/light rain with gusty winds is expected at isolated places in Peshawar, Malakand, Hazara, Mardan, Gujranwala, Rawalpindi, Sargodha divisions, Islamabad, upper FATA, Gilgit Baltistan and Kashmir. Duststorm/gusty winds are expected in Multan and D.G. Khan divisions.

THURSDAY**04-05-2017**

Mainly hot and dry weather is expected in most parts of the country. However, light rain-thunderstorm with gusty winds is expected at isolated places in upper FATA, Gilgit-Baltistan and Kashmir.

FRIDAY**05-05-2017**

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

SATURDAY**06-05-2017**

Mainly hot and dry weather is expected in most parts of the country. However, dust-thunderstorm/light rain is expected at isolated places in Quetta, Zhob, FATA, KP, Rawalpindi, Sargodha, Kashmir and Gilgit-Baltistan.

SUNDAY**07-05-2017**

Mainly hot and dry weather is expected in most parts of the country. However, dust-thunderstorm/light rain is expected at isolated places in Quetta, Zhob, FATA, KP, Rawalpindi, Sargodha, Kashmir and Gilgit-Baltistan.

MONDAY**08-05-2017**

Mainly hot and dry weather is expected in most parts of the country. However, dust-thunderstorm/light rain is expected at isolated places in upper KP, upper Punjab, GB and Kashmir.

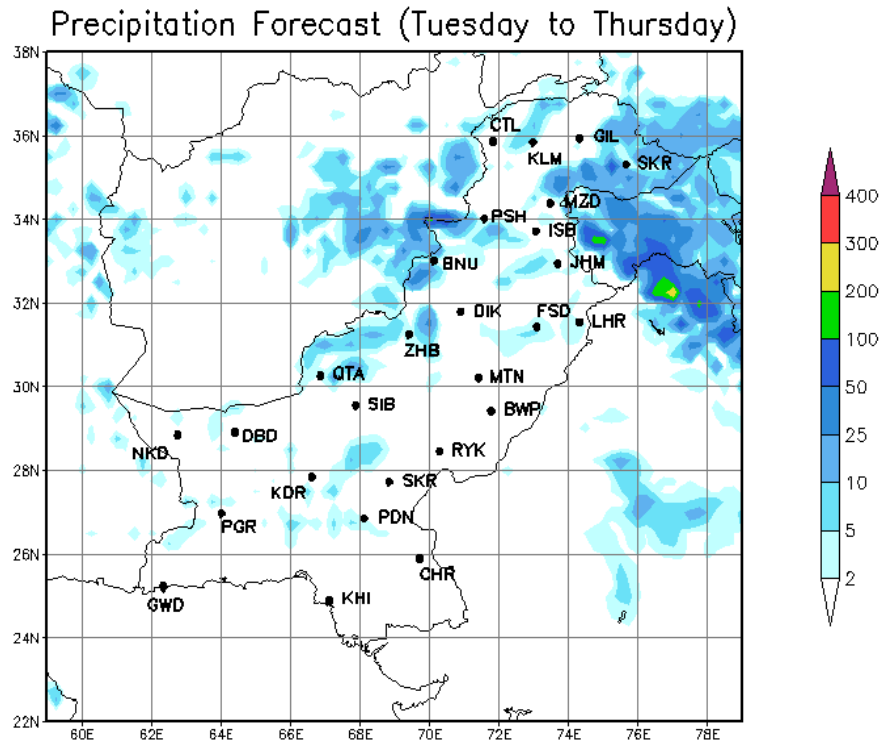
ADVISES FOR FARMERS

During the last week, light to moderate rainfall occurred in upper half of the country and Sindh-Makran Coast, while hot and dry weather prevailed in rest parts. This may continue with almost the same pattern over upper half of the country in coming days as well. Keeping in view the expected weather conditions following advises are suggested for farming community.

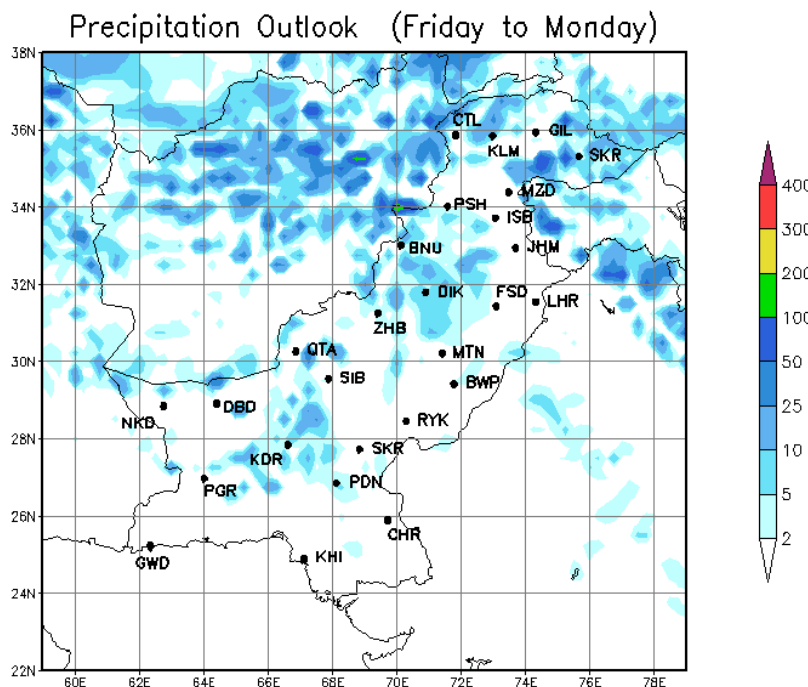
- Farmers of Punjab and southern KP may schedule the harvesting of wheat crop in accordance with the prevailing weather conditions.
- Farmers of irrigated areas may irrigate the rest of crops as per requirement in accordance with the expected weather conditions.

Weather Outlook from 2nd May to 8th May, 2017

The forecast from 2nd to 4th May, 2017 shows that dry weather is expected in most parts of the country. However, light rainfall is expected at scattered places in KP, GB and Kashmir.



The outlook from 5th to 8th May, 2017 shows that light to moderate rainfall is expected in particular places in KP, GB, Kashmir and northern and north eastern Balochistan.



National Weather Data of Selected Cities
(Weekly Data from 24th April to 1st May, 2017)

Stations	Maximum/Nighttime 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							
Astore	17.0	20.5	42.5	49	1.90	4.3	5.9	2.0	5.1
Badin	38.9	41.5	187.8	49	0.00	1.3	0.0	4.9	6.9
Bahawalnagar	39.3	41.0	186.8	33	0.00	1.0	0.0	0.6	1.1
Bahawalpur	39.0	40.7	183.7	41	0.01	0.0	0.0	0.9	0.9
Balakot	28.3	31.5	111.4	55	12.00	2.0	5.3	0.0	0.9
Bannu	34.3	36.6	140.5	44	0.00	0.7	2.1	0.6	6.9
Barkhan	33.1	35.0	143.0	25	0.00	0.0	1.3	0.6	2.6
Bunji	24.2	26.1	94.7	52	0.51	7.2	7.4	0.0	2.6
Cherat	24.1	29.0	96.5	52	5.00	3.4	2.9	4.0	2.9
Chhor	40.7	43.4	195.4	48	0.00	1.4	0.0	4.3	8.0
Chilas	26.8	29.0	109.0	40	0.00	4.0	4.4	1.4	6.4
Chitral	27.2	30.2	93.1	46	0.71	1.3	4.7	1.4	6.9
D.G.Khan	37.3	39.1	171.9	45	14.00	0.3	1.3	4.6	6.9
D.I.Khan	37.4	39.5	168.8	43	0.00	0.6	0.0	0.6	0.9
Dalbandin	36.5	41.0	138.8	22	0.00	0.0	0.7	1.1	3.7
Dir	24.4	28.0	71.5	61	8.00	1.6	5.0	0.3	2.0
Drosh	28.5	31.5	101.2	40	1.40	1.9	4.6	0.0	9.1
Faisalabad	36.8	39.5	169.4	40	0.00	0.7	1.6	1.6	1.0
Garidopatta	29.2	32.5	116.6	58	14.20	2.1	4.6	0.0	4.6
Gawader	35.8	38.5	171.8	68	0.00	2.1	0.6	1.0	9.7
Gilgit	23.6	26.0	80.5	52	2.81	5.1	7.0	2.0	5.7
Gupis	21.3	23.5	69.0	44	1.00	3.0	6.0	1.1	4.0

Hyderabad	39.9	42.5	187.8	52	0.00	0.0	0.0	7.4	14.9
Islamabad	31.1	34.0	127.3	50	6.00	3.0	3.3	1.4	0.9
Jacobabad	41.6	47.0	194.8	28	0.00	0.0	0.0	2.9	6.9
Jhang	37.2	39.7	168.8	45	0.01	0.3	2.1	2.6	1.7
Jhelum	35.2	38.0	155.4	48	7.40	1.4	3.4	1.4	3.7
Jiwani	33.7	37.0	173.5	71	0.00	1.4	0.6	0.6	10.0
Kakul	25.4	27.5	92.3	50	8.00	2.3	4.1	0.0	1.4
Kalam	20.0	23.0	52.2	52	9.00	1.6	3.6	0.9	2.3
Karachi	35.3	41.5	178.0	59	0.00	2.4	1.1	19.7	13.7
Khanpur	40.1	42.0	189.6	35	0.00	0.0	0.0	2.3	0.6
Khuzdar	35.2	36.5	147.8	39	0.00	0.0	0.0	1.1	3.0
Kalat	28.3	32.0	114.0	27	0.00	0.0	0.0	0.0	0.0
Kotli	30.8	33.9	133.7	56	19.01	2.9	5.7	3.4	4.3
Lahore	36.1	39.0	170.4	38	0.21	0.6	0.4	3.1	2.6
Larkana	41.6	44.0	203.8	32	0.00	0.0	0.0	2.7	4.9
Lasbella	41.3	44.0	193.2	48	5.00	1.2	1.0	0.7	5.1
Lower Dir	30.6	33.5	126.3	53	5.00	1.0	3.6	1.7	2.3
M.B Din	35.4	38.5	165.0	45	0.01	1.7	2.3	2.0	1.7
Malam Jabba	16.6	19.0	45.0	60	11.00	1.7	3.6	0.0	3.6
Mangla	33.6	36.5	146.8	47	7.30	2.0	3.3	2.3	7.1
Mir Khani	31.1	34.6	110.5	43	0.00	1.0	3.7	1.4	3.4
Moinjodaro	41.8	43.5	187.3	38	0.00	0.0	0.0	2.0	4.0
Multan(PBO)	37.0	39.1	175.9	38	0.01	0.1	0.9	3.1	4.3
Murree	19.5	22.2	66.5	60	7.40	2.3	4.1	2.6	3.1
Muzaffarabad	27.6	30.8	106.4	58	11.80	2.3	4.1	0.3	3.9
Nawabshah	42.5	44.5	200.6	44	0.00	0.0	0.0	5.6	7.0

Nokkundi	35.9	39.5	162.0	17	0.00	0.0	0.7	4.3	10.7
Okara	39.3	41.0	174.3	43	0.00	0.6	0.3	0.3	0.6
Padidan	41.6	43.0	191.8	37	0.00	0.0	0.3	1.7	1.7
Panjgur	33.7	37.0	149.0	28	0.00	0.0	0.0	1.4	14.6
Parachinar	23.3	26.0	89.0	60	48.00	4.7	5.1	2.6	3.0
Pasni	34.8	38.0	166.8	76	0.00	0.4	0.5	0.0	12.0
Pattan	29.4	33.0	118.5	51	4.00	1.1	4.0	0.3	0.9
Peshawar	33.0	35.5	148.0	49	1.00	2.6	3.9	1.1	2.0
Quetta	26.5	29.0	96.6	16	0.00	0.0	0.4	2.6	4.2
Rahim Yar Khan	41.1	42.4	188.2	42	0.00	0.0	0.0	2.3	1.7
Rawalakot	21.0	24.5	62.3	74	35.60	2.3	5.7	0.6	1.1
Rawalpindi	32.2	34.5	138.3	52	22.50	2.9	2.4	1.6	1.6
Rohri	41.6	43.0	193.8	30	0.00	0.0	0.0	2.0	1.4
Sahiwal	36.4	39.5	160.6	41	0.02	1.1	0.0	1.1	2.3
Saidu Sharif	27.3	30.4	106.9	60	14.00	1.9	3.4	0.3	1.1
Sialkot	34.7	36.5	153.9	41	0.00	1.3	1.6	2.3	4.9
Sibbi	41.7	44.0	193.5	22	0.00	0.0	0.0	4.6	5.4
Skardu	19.9	23.3	58.4	51	1.01	4.7	5.9	0.0	1.7
Tandojam	38.9	40.5	178.3	53	0.00	0.0	0.0	1.1	2.5
Usta.M	32.0	34.0	199.5	32	0.00	0.0	0.0	0.6	6.3
Zhob	30.7	32.0	131.5	32	0.00	0.0	2.7	5.0	7.9

*** 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)