

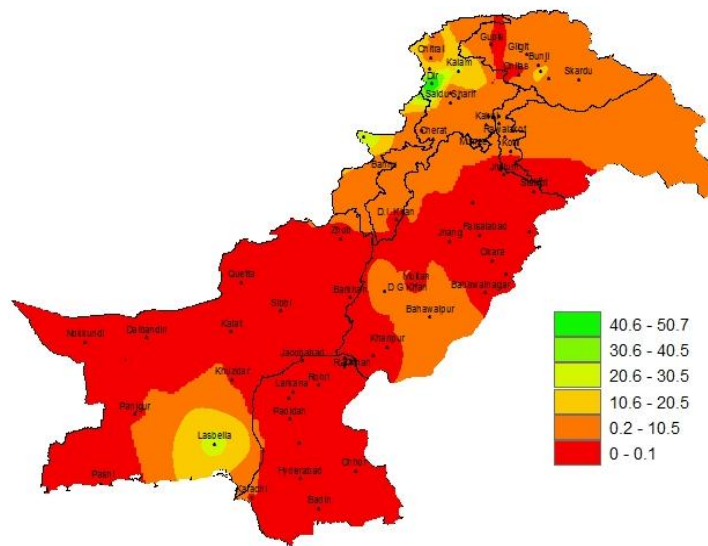
Weekly Weather and Crop Bulletin for Pakistan

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 (from 1st May to 7th May, 2017)



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Highlights of Past Weather (from 1st May to 7th May, 2017)

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

Province wise distribution of rainfall reported as follows:

- Light rainfall reported from few places in Punjab, Gilgit-Baltistan (GB) and Kashmir.
- Light to moderate rainfall reported from most of the places in Khyber Pakhtunkhwa (KP).
- Light to moderate rainfall reported from isolated places of Balochistan.
- Light rainfall reported from a single place "Mithi" of 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 1st May to 7th May, 2017)

Punjab

Light rainfall reported from few places in Punjab during the week. Weekly maximum and minimum temperatures recorded as 38.5°C & 22.6°C respectively. For the recent week on average 179 growing degree days were accumulated by the end of the last week. Average relative humidity recorded as 36% and wind speed in the morning/evening recorded as 2.2/2.8 Knots. During the previous week the highest amount of rainfall was recorded as 9.0 mm at Murree & highest maximum temperature was recorded as 46.2°C at Rahim Yar Khan.

Balochistan

Light to moderate rainfall reported from isolated places of Balochistan during the week. Weekly maximum and minimum temperatures recorded as 35.9°C & 20.4°C respectively. For the recent week on average 165.4 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 0.9/5.6 Knots. During the previous week the highest amount of rainfall was recorded as 22.0 mm at Lasbella & highest maximum temperature was recorded as 48.0°C at Sibbi.

Khyber Pakhtunkhwa

Light to moderate rainfall reported from most of the places in Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 30.6°C & 15°C respectively. For the recent week on average 124.6 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 1.1/2.6 Knots. During the previous week the highest amount of rainfall was recorded as 51.0 mm at Dir & highest maximum temperature was recorded as 43°C at D.I. Khan.

Gilgit-Baltistan and Azad Jammu & Kashmir

Light rainfall reported from few places in Gilgit-Baltistan & Kashmir during the week. Weekly maximum and minimum temperatures recorded as 26.8°C & 12.0°C respectively. For the recent week on average 101.4 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 1.0/1.8 Knots. During the previous week the highest amount of rainfall was recorded as 7.8 mm at Garhi Dupatta & highest maximum temperature was recorded as 38.3°C at Kotli.

Sindh

Light rainfall reported from a single place “Mithi” of Sindh during the week. Weekly maximum and minimum temperatures recorded as 42.6°C & 24.7°C respectively. For the recent week, on average 202.5 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 42% and wind speed in the morning/evening recorded as 3.3/5.4 Knots. During the previous week the highest amount of rainfall was recorded as 1.4mm only at Mitthi, highest maximum temperature was recorded as 48.0°C at Larkana.

**Past Weather for Major Agricultural Plains
(from 1st May to 7th May, 2017)****Rawalpindi (Potohar region)**

Rainfall reported as trace (not measureable) from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 2.7/2.3 Oktas while, average relative humidity observed as 49%. Mean day time temperature recorded as 34.1°C & for the recent week 156.2 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.9/3.4 Knots.

Faisalabad (Central Punjab)

Dry weather reported from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 1.6/1.0 Oktas while, average relative humidity observed as 38%. Mean day time temperature recorded as 39.1°C & for the recent week 185.7 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.8/0.9 Knots.

Tandojam (Lower Sindh)

Dry weather reported from Tandojam during the week; however, cloudiness in the morning/evening recorded as 0.6/2.8 Oktas while, average relative humidity observed as 53%. Mean day time temperature recorded as 42.0°C & for the recent week 188.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.6/3.2 Knots.

Usta Muhammad (Eastern Balochistan)

Dry weather reported from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded 0.1/0.3 Oktas while, average relative humidity observed as 31%. Mean day time temperature recorded as 46.3°C & for the recent week 201.7 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.5/0.5 Knots.

Quetta (Northern Baluchistan)

Dry weather reported from Quetta during the week; however, cloudiness in the morning/evening recorded as 0.8/3.4 Oktas while, average relative humidity observed as 20%. Mean day time temperature recorded as 30.3°C & for the recent

week 116.2 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.2/3.6 Knots.

Past Weather for Sub-Regional Agricultural Plains (from 1st May to 7th May, 2017)**Multan**

Dry weather reported from Multan during the week; however, cloudiness in the morning/evening recorded as 1.1/2.1 Oktas while, average relative humidity observed as 30%. Mean day time temperature recorded as 40.4°C & for the recent week 198.7 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 4.0/6.6 Knots.

Lahore

Dry weather reported from Lahore during the week; however, cloudiness in the morning/evening recorded as 1.9/2.0 Oktas while, average relative humidity observed as 27%. Mean day time temperature recorded as 38.8°C & for the recent week 187.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.6/3.4 Knots.

Zhob

Dry weather reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 1.1/3.7 Oktas while, average relative humidity observed as 42%. Mean day time temperature recorded as 32.1°C & for the recent week 143.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.3/7.6 Knots.

Murree

Rainfall reported as 9.0 mm from Murree during the week; however, cloudiness in the morning/evening recorded as 3.1/4.6 Oktas while, average relative humidity observed as 51%. Mean day time temperature recorded as 20.9°C & for the recent week 76.7 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.7/2.6 Knots.

D.I. Khan

Rainfall reported as 0.01 mm from D.I. Khan during the week; however, cloudiness in the morning/evening recorded as 1.9/2.6 Oktas while, average relative humidity observed as 42%. Mean day time temperature recorded as 39.4°C & for the recent week 183.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.1/1.7 Knots.

Peshawar

Rainfall reported as 0.05 mm from Peshawar during the week; however, cloudiness in the morning/evening recorded as 2.0/4.0 Oktas while, average relative humidity observed as 48%. Mean day time temperature recorded as 34.7°C & for the recent week 159.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.9/2.3 Knots.

Kalam

Rainfall reported as 21 mm from Kalam during the week; however, cloudiness in the morning/evening recorded as 0.7/4.4 Oktas while, average relative humidity observed as 52%. Mean day time temperature recorded as 23.1°C & for the recent week 65.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.9/2.9 Knots.

Gilgit

Rainfall reported as 0.40 mm from Gilgit during the week; However, cloudiness in the morning/evening recorded as 3.7/5.6 Oktas while, average relative humidity observed as 39%. Mean day time temperature recorded as 28.9°C & for the recent week 105.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/1.4 Knots.

Skardu

Rainfall reported as 1.00 mm from Skardu during the week; however, cloudiness in the morning/evening recorded as 4.6/5.6 Oktas while, average relative humidity observed as 33%. Mean day time temperature recorded as 22.7°C & for the recent week 73.1 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/2.0 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)

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

Lower Sindh (Tandojam)

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

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

Northern Balochistan (Quetta)

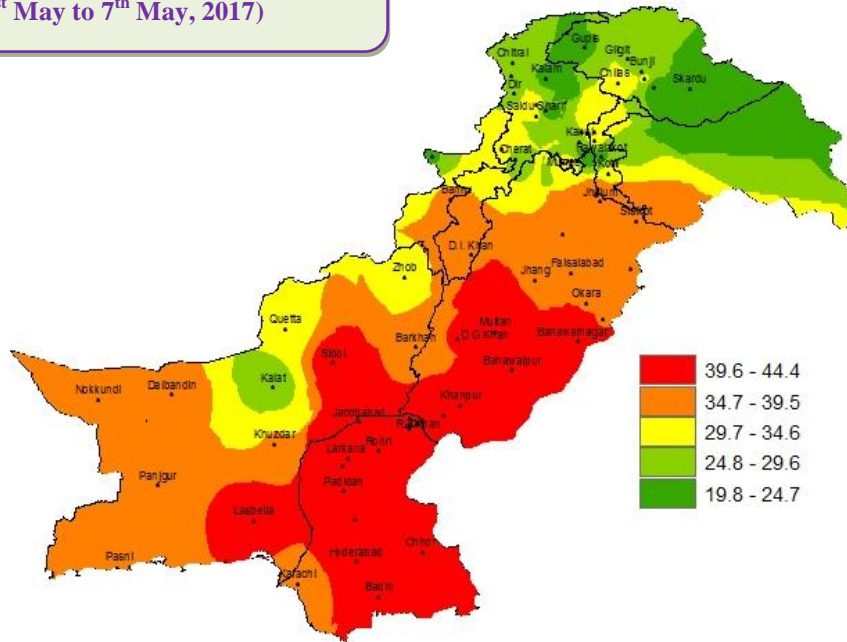
There is presently one crop (irrigated conditions) grown in the fields of RAMC Quetta.

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

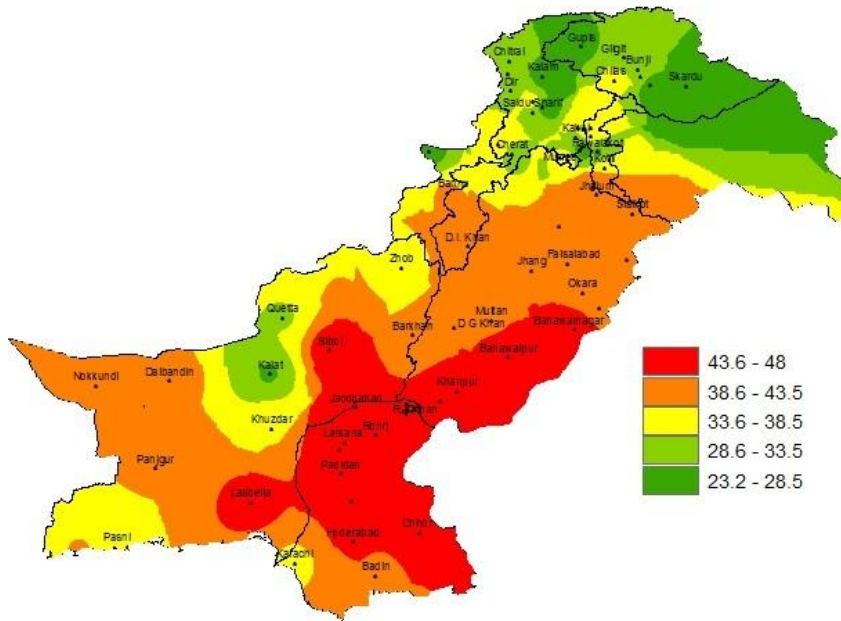
Eastern Balochistan (Usta Muhammad)

Land has been prepared for new crop.

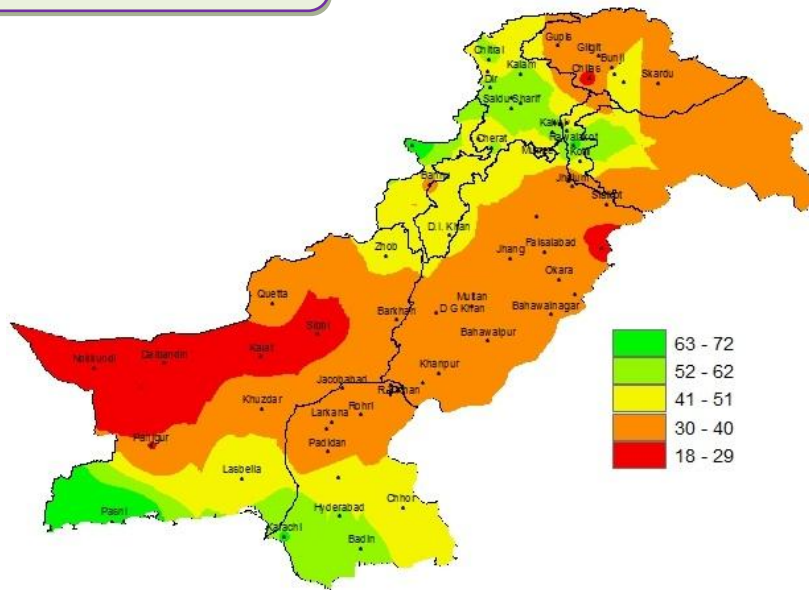
Mean Maximum Temperature (°C) during the Previous week (from 1st May to 7th May, 2017)



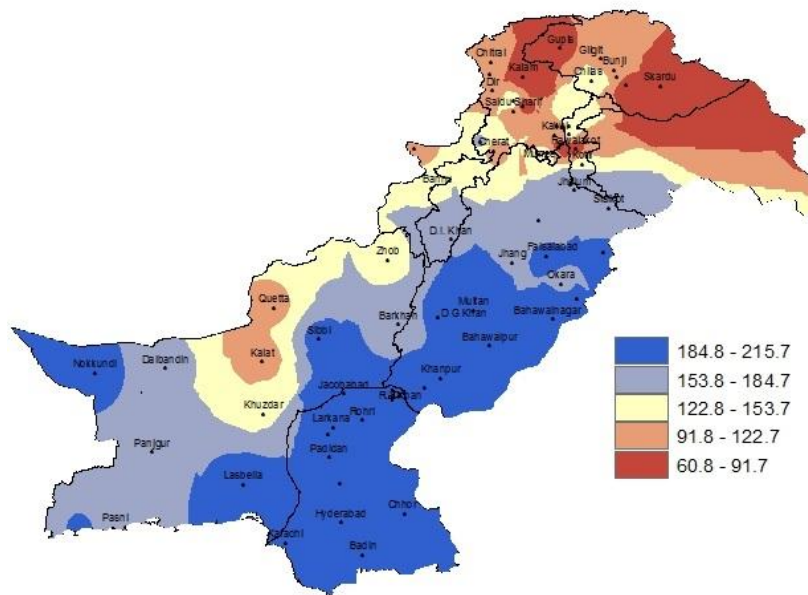
Highest maximum Temperature (°C) during the Previous week (from 1st May to 7th May, 2017)



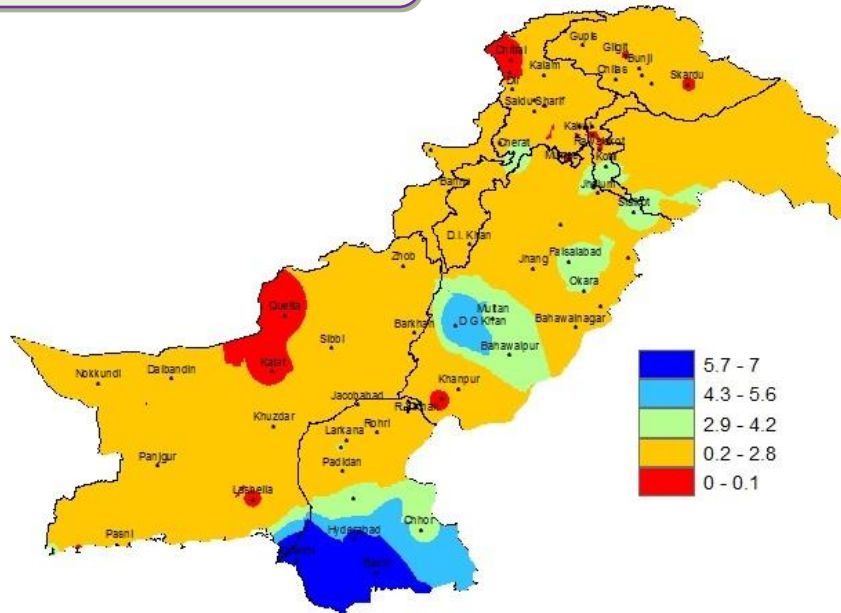
Mean Relative Humidity (%) during the Previous week (from 1st May to 7th May, 2017)



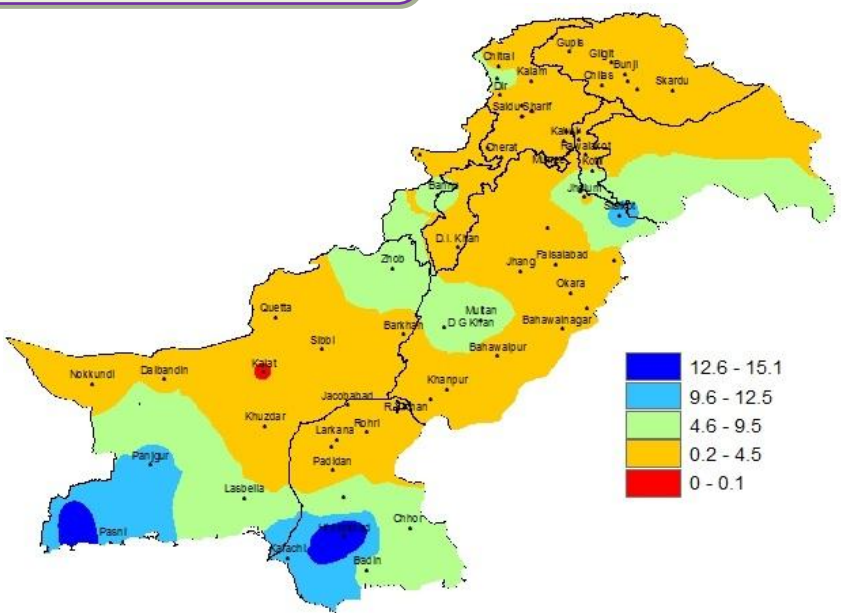
Total Growing Degree Days accumulated during the Previous week (from 1st May to 7th May, 2017)



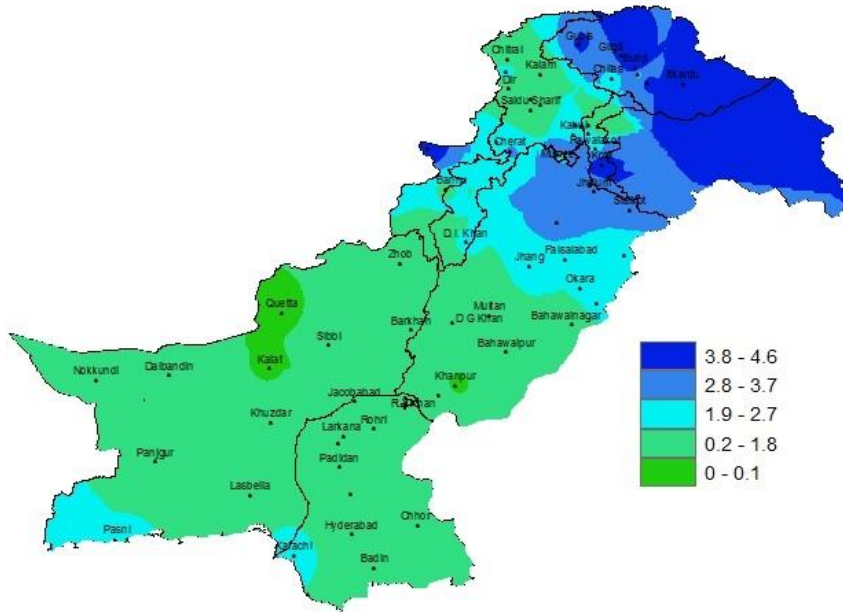
Mean Wind Speed (Knots) at 0800PST during the Previous week (from 1st May to 7th May, 2017)



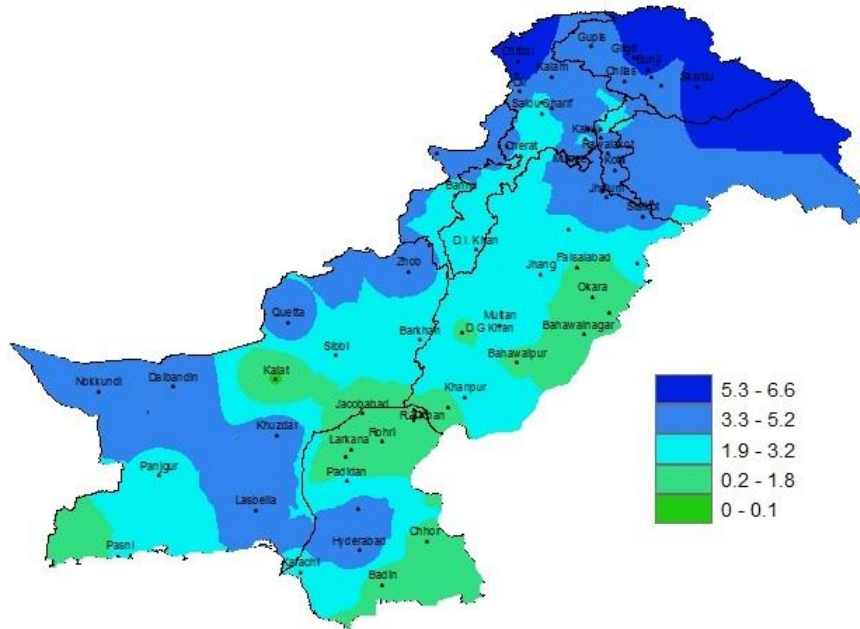
Mean Wind Speed (Knots) at 1700PST during the Previous week (from 1st May to 7th May, 2017)



Mean Cloudiness (Oktas) at 0800PST during the Previous week (from 1st May to 7th May, 2017)



Mean Cloudiness (Oktas) at 1700PST during the Previous week (from 1st May to 7th May, 2017)



Weekly Weather Advisory for Farmers**(From 8th May to 14th May, 2017)**

A shallow westerly trough is present over upper parts of the country.

MONDAY**08-05-2017**

Mainly hot and dry weather is expected in most plain areas of the country while very hot weather is likely in upper Sindh and south/central Punjab. However, light rain dust-thunderstorm is expected at few places in Quetta, Zhob, Kalat, Larkana, Rawalpindi divisions, Islamabad, Khyber Pakhtunkhwa, FATA, Gilgit-Baltistan & Kashmir.

TUESDAY**09-05-2017**

Mainly hot and dry weather is expected in most plain areas of the country while very hot weather is likely in upper Sindh and south/central Punjab. However, light rain dust-thunderstorm is expected at few places in Quetta, Zhob, Kalat, Larkana, Rawalpindi, Sargodha divisions, Khyber Pakhtunkhwa, FATA, Gilgit-Baltistan & Kashmir.

WEDNESDAY**10-05-2017**

Mainly hot and dry weather is expected in most plain areas of the country while very hot weather is likely in upper Sindh and south/central Punjab. However, light rain dust-thunderstorm is expected at few places in Quetta, Makran, Kalat, Malakand, Hazara, Rawalpindi divisions, Khyber Pakhtunkhwa, FATA, Gilgit-Baltistan & Kashmir.

THURSDAY**11-05-2017**

Mainly hot and dry weather is expected in most parts of the country. However, rain-thunderstorm is expected at isolated places in Quetta, Malakand, Hazara divisions, upper FATA, Gilgit Baltistan and Kashmir.

FRIDAY**12-05-2017**

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.

SATURDAY**13-05-2017**

Mainly hot and dry weather is expected in most plain areas of the country. However, light rain-thunderstorm with gusty winds is expected at a few places in Malakand, Hazara divisions, Kashmir and Gilgit-Baltistan.

SUNDAY**14-05-2017**

Mainly hot and dry weather is expected in most plain areas of the country. However, light rain-thunderstorm with gusty winds is expected at a few places in Quetta, Zhob, Malakand, Hazara divisions, upper FATA, Kashmir and Gilgit-Baltistan.

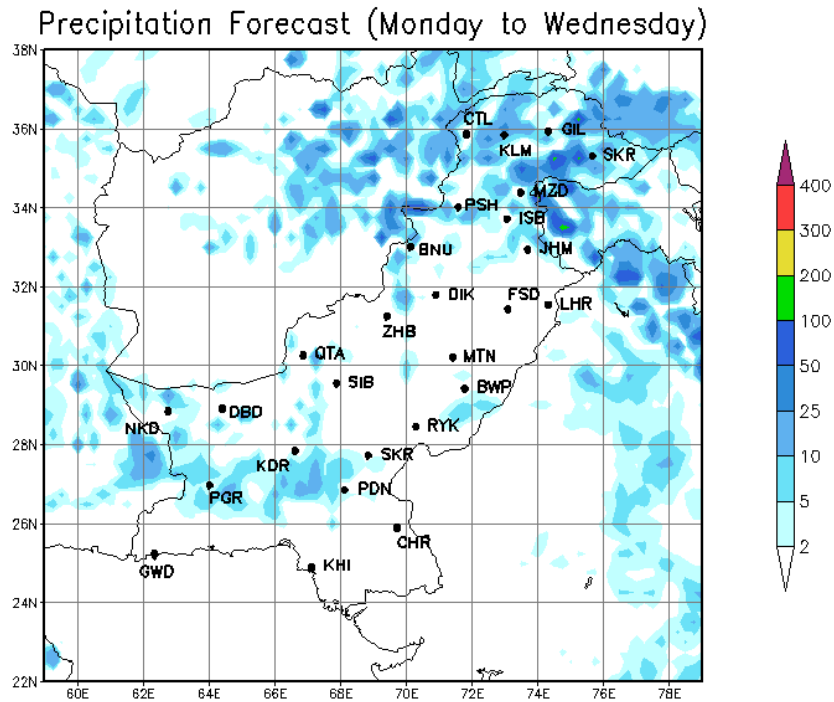
ADVISES FOR FARMERS

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.

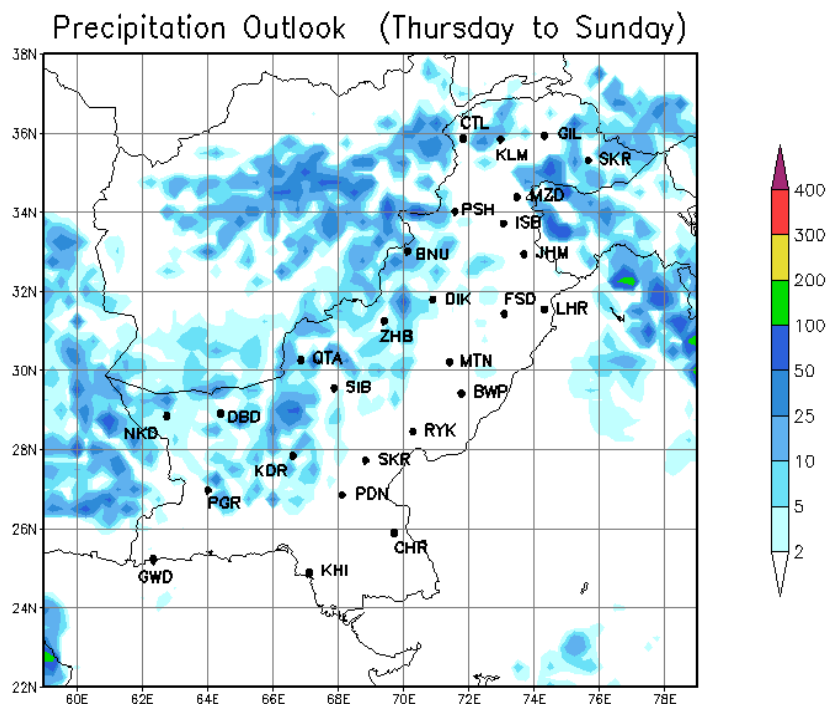
- Farmers of Punjab and southern KP may schedule the harvesting of wheat crop in accordance with the prevailing weather conditions.
- Farmers of irrigated areas may irrigate the rest of crops as per requirement in accordance with the expected weather conditions.

Weather Outlook from 8th May to 14th May, 2017

The forecast from 8th to 10th May, 2017 shows that dry weather is expected in most parts of the country. However, light rainfall is expected at scattered places in KP, central Balochistan, GB and Kashmir.



The outlook from 11th to 14th May, 2017 shows that light rainfall is expected at scattered places in KP, GB, Kashmir and northern and northwestern Balochistan.



National Weather Data of Selected Cities
(Weekly Data from 1st May to 7th 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	19.8	23.5	60.0	46	2.62	3.9	5.0	2.0	2.9
Badin	41.0	42.0	198.1	52	0.00	1.3	0.9	6.6	8.9
Bahawalnagar	42.1	46.0	199.5	31	0.00	0.6	1.6	0.6	0.3
Bahawalpur	41.7	44.6	196.3	36	1.00	0.4	1.7	4.0	2.3
Balakot	30.1	35.0	119.9	53	0.00	2.1	5.6	0.9	0.9
Bannu	36.1	39.4	152.5	39	2.00	1.7	2.7	1.4	5.1
Barkhan	35.2	38.5	162.0	31	0.00	0.7	2.4	0.3	2.9
Bunji	28.2	31.1	119.2	39	0.00	4.6	5.7	0.9	1.1
Cherat	27.0	31.0	110.3	51	2.00	2.9	2.4	4.0	3.1
Chhor	43.4	46.0	213.8	48	0.00	0.5	1.4	4.0	4.9
Chilas	32.0	35.5	142.8	27	0.00	2.4	3.7	2.0	1.4
Chitral	29.0	31.2	104.9	54	5.00	1.4	6.6	0.0	2.6
D.G.Khan	40.1	43.0	193.3	39	0.20	0.6	1.7	5.4	6.3
D.I.Khan	39.4	43.0	183.3	42	0.01	1.9	2.6	1.1	1.7
Dalbandin	38.3	41.5	164.3	21	0.00	1.1	4.7	0.3	4.3
Dir	28.1	31.0	92.8	60	51.00	1.1	4.3	0.3	2.3
Drosh	28.8	32.5	107.0	40	13.60	2.1	5.6	0.0	9.0
Faisalabad	39.1	42.5	185.7	38	0.00	1.6	1.0	0.8	0.9
Garidopatta	30.8	36.4	126.3	55	7.80	2.1	4.6	0.0	1.4
Gawader	36.7	39.0	187.5	69	0.00	2.0	1.4	0.0	14.3
Gilgit	28.9	31.5	105.5	39	0.40	3.7	5.6	0.0	1.4
Gupis	23.7	26.0	75.8	37	0.00	3.7	5.0	2.3	3.4

Hyderabad	42.5	44.5	201.3	51	0.00	0.9	4.1	5.7	15.1
Islamabad	33.2	37.0	144.2	40	0.03	2.7	3.9	0.0	1.1
Jacobabad	43.4	47.0	210.3	37	0.00	1.0	1.6	1.4	0.9
Jhang	39.5	42.5	183.7	37	0.00	2.0	2.0	0.3	3.1
Jhelum	37.8	42.0	174.2	36	0.00	3.1	3.4	0.9	3.1
Jiwani	34.9	36.5	179.0	63	0.00	2.4	1.6	3.1	10.9
Kakul	26.9	32.0	102.4	54	11.01	2.6	2.3	0.0	0.6
Kalam	23.1	26.0	65.5	52	21.00	0.7	4.4	0.9	2.9
Kalat	25.4	28.0	106.5	25	0.00	0.0	0.0	0.0	0.0
Karachi	36.4	37.2	186.6	62	0.00	2.2	3.0	7.0	12.3
Khanpur	42.4	45.5	204.3	33	0.00	0.0	2.4	0.6	1.7
Khuzdar	34.9	37.5	149.3	38	0.00	1.1	4.3	0.9	2.3
Kotli	33.1	38.3	151.5	50	0.00	4.3	4.4	3.4	4.6
Lahore	38.8	42.8	187.5	27	0.00	1.9	2.0	2.6	3.4
Larkana	44.4	48.0	213.5	31	0.00	0.9	1.1	1.7	4.0
Lasbella	42.6	45.5	202.0	46	22.00	1.4	3.6	0.0	4.9
Lower Dir	34.1	36.5	147.5	53	7.00	1.6	2.9	2.0	2.3
M.B Din	38.3	42.5	177.9	35	0.00	3.3	3.0	1.4	2.0
Malam Jabba	19.5	23.0	65.5	52	10.00	1.9	4.1	0.0	0.0
Mangla	36.8	41.0	169.9	34	0.01	3.4	4.6	4.6	8.9
Mir Khani	31.5	34.0	117.8	42	21.00	2.4	5.0	1.7	3.6
Moinjodaro	43.5	47.5	186.5	39	0.00	0.5	1.4	3.0	3.7
Multan(PBO)	40.4	43.2	198.7	30	0.00	1.1	2.1	4.0	6.6
Murree	20.9	25.3	76.7	51	9.00	3.1	4.6	1.7	2.6
Muzaffarabad	30.5	35.5	117.2	55	5.40	2.7	3.4	0.0	0.7
Nawabshah	44.4	47.0	203.8	44	0.00	1.3	3.9	3.6	7.1

Nokkundi	39.2	42.0	195.5	18	0.00	1.6	3.9	1.7	3.4
Okara	39.3	42.0	183.3	39	0.00	2.0	1.4	2.9	1.7
Padidan	43.9	46.0	206.0	37	0.00	0.9	2.0	1.4	2.3
Panjgur	37.0	39.0	170.3	29	0.00	0.7	2.9	1.4	10.3
Parachinar	24.2	25.5	98.4	71	27.00	4.4	4.9	2.6	3.3
Pasni	34.8	37.0	178.8	72	0.00	2.0	2.0	0.6	11.3
Pattan	32.4	36.0	144.5	37	0.00	0.4	1.9	0.6	0.0
Peshawar	34.7	38.5	159.5	48	0.05	2.0	4.0	0.9	2.3
Quetta	30.3	36.5	116.2	20	0.00	0.8	3.4	2.2	3.6
Rahim Yar Khan	44.2	46.2	204.1	40	0.00	0.6	1.3	0.0	2.7
Rawalakot	23.0	28.0	72.7	64	6.01	2.6	4.4	0.0	1.1
Rawalpindi	34.1	38.5	156.2	49	0.01	2.7	2.3	0.9	3.4
Rohri	43.6	46.5	215.8	30	0.00	0.6	0.6	0.6	0.6
Sahiwal	39.3	42.2	184.8	36	0.00	2.4	1.4	2.0	2.0
Saidu Sharif	30.6	33.5	121.8	52	3.00	0.6	2.0	0.3	0.0
Sialkot	37.6	41.5	173.3	30	0.00	3.3	3.4	3.1	10.9
Sibbi	44.4	48.0	199.3	26	0.00	0.6	2.3	0.6	2.9
Skardu	22.7	27.0	73.1	33	1.00	4.6	5.6	0.0	2.0
Tandojam	42.0	44.0	188.8	53	0.00	0.6	2.8	0.6	3.2
Usta.M	46.3	47.5	201.7	31	0.00	0.1	0.3	0.5	0.5
Zhob	32.1	36.0	143.8	42	0.00	1.1	3.7	2.3	7.6

*** 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)