

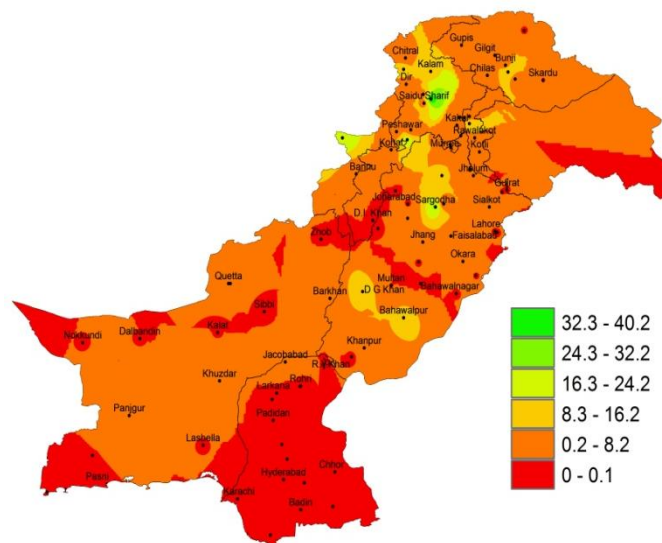
Weekly Weather and Crop Bulletin for Pakistan

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PAKISTAN METEOROLOGICAL
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**Rainfall Distribution (mm) during the
Previous Week (from 8th May to 14th May, 2017)**



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Highlights of Past Weather (from 8th May to 14th 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 places of Punjab, Gilgit Baltistan and Azad Kashmir and Khyber Pakhtunkhwa (KP).
- Light rainfall reported from isolated places of Balochistan and 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 8th May to 14th May, 2017)

Punjab

Light to moderate rainfall reported from most places of Punjab during the week. Weekly maximum and minimum temperatures recorded as 41.0°C & 25.0°C respectively. For the recent week on average 195 growing degree days were accumulated by the end of the last week. Average relative humidity recorded as 38% and wind speed in the morning/evening recorded as 2.1/3.3 Knots. During the previous week the highest amount of rainfall was recorded as 26.01 mm at Sargodha & highest maximum temperature was recorded as 47.9°C at Rahim Yar Khan.

Balochistan

Light rainfall reported from isolated places of Balochistan during the week. Weekly maximum and minimum temperatures recorded as 36.8°C & 22.4°C respectively. For the recent week on average 167.8 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 40% and wind speed in the morning/evening recorded as 1.5/6.9 Knots. During the previous week the highest amount of rainfall was recorded as 8.0mm at Panjgur & highest maximum temperature was recorded as 47.0°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 33.4°C & 18.1°C respectively. For the recent week on average 144.5 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 1.3/2.7 Knots. During the previous week the highest amount of rainfall was recorded as 41.0 mm at Malamjabba & highest maximum temperature was recorded as 44.5°C at D.I. Khan.

Gilgit-Baltistan and Azad Jammu & Kashmir

Light to moderate rainfall reported from few places of Gilgit-Baltistan & Kashmir during the week. Weekly maximum and minimum temperatures recorded as 29.9°C & 14.2°C respectively. For the recent week on average 120.5 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 48% and wind speed in the morning/evening recorded as 1.0/2.9 Knots. During the previous week the highest amount of rainfall was recorded as 11.5 mm at Garhi Dopatta & highest maximum temperature was recorded as 39.4°C at Kotli.

Sindh

Light rainfall reported from isolated places of Sindh during the week. Weekly maximum and minimum temperatures recorded as 42.3°C & 26.5°C respectively. For the recent week, on average 205.4 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 4.1/6.6 Knots. During the previous week the highest amount of rainfall was recorded as 1.01 mm only at Jacobabad, highest maximum temperature was recorded as 49.0°C at Dadu.

Past Weather for Major Agricultural Plains (from 8th May to 14th May, 2017)

Rawalpindi (Potohar region)

Rainfall reported as 0.6 mm from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 2.0/3.1 Oktas while, average relative humidity observed as 43%. Mean day time temperature recorded as 39.0°C & for the recent week 183.9 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.5/1.4 Knots.

Faisalabad (Central Punjab)

Rainfall reported as 5.4 mm from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 0.6/0.0 Oktas while, average relative humidity observed as 40%. Mean day time temperature recorded as 41.3°C & for the recent week 198.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.8/0.6 Knots.

Tandojam (Lower Sindh)

Dry weather reported from Tandojam during the week; however, cloudiness in the morning/evening recorded as 0.0/1.9 Oktas while, average relative humidity observed as 55%. Mean day time temperature recorded as 42.3°C & for the recent week 198.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.6/3.8 Knots.

Usta Muhammad (Eastern Balochistan)

Rainfall reported as 10.0 mm from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded as 1.8/3.3 Oktas while, average relative humidity observed as 43%. Mean day time temperature recorded as 43.3°C & for the recent week 206.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.0/1.5 Knots.

Quetta (Northern Baluchistan)

Rainfall reported as 4.6mm from Quetta during the week; however, cloudiness in the morning/evening recorded as 4.0/5.6 Oktas while, average relative humidity observed as 28%. Mean day time temperature recorded as 30.4°C & for the recent

week 129.4 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.1/3.3 Knots.

Past Weather for Sub-Regional Agricultural Plains (from 8th May to 14th May, 2017)

Multan

Rainfall reported as 0.02 mm from Multan during the week; however, cloudiness in the morning/evening recorded as 3.5/3.2 Oktas while, average relative humidity observed as 31%. Mean day time temperature recorded as 41.9°C & for the recent week 210.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 3.3/7.7 Knots.

Lahore

Rainfall reported as 0.02 mm from Lahore during the week; however, cloudiness in the morning/evening recorded as 0.8/1.3 Oktas while, average relative humidity observed as 35%. Mean day time temperature recorded as 40.9°C & for the recent week 202.1 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.3/4.0 Knots.

Zhob

Dry weather reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 0.4/6.0 Oktas while, average relative humidity observed as 38%. Mean day time temperature recorded as 34.1°C & for the recent week 151.6 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 3.0/12.2 Knots.

Murree

Rainfall reported as 3.02 mm from Murree during the week; however, cloudiness in the morning/evening recorded as 2.8/5.0 Oktas while, average relative humidity observed as 52%. Mean day time temperature recorded as 25.4°C & for the recent week 102.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.3/3.0 Knots.

D.I. Khan

Rainfall reported as 0.02 mm from D.I. Khan during the week; however, cloudiness in the morning/evening recorded as 0.3/3.3 Oktas while, average relative humidity observed as 48%. Mean day time temperature recorded as 41.8°C & for the recent week 186.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.7/0.3 Knots.

Peshawar

Rainfall reported as 4.03 mm from Peshawar during the week; however, cloudiness in the morning/evening recorded as 2.3/6.0 Oktas while, average relative humidity observed as 46%. Mean day time temperature recorded as 38.1°C & for the recent week 185.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.7/5.0 Knots.

Kalam

Rainfall reported as 14.0 mm from Kalam during the week; however, cloudiness in the morning/evening recorded as 4.2/6.5 Oktas while, average relative humidity observed as 66%. Mean day time temperature recorded as 24.9°C & for the recent week 81.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.3 Knots.

Gilgit

Rainfall reported as 4.01 mm from Gilgit during the week; However, cloudiness in the morning/evening recorded as 3.2/6.8 Oktas while, average relative humidity observed as 52%. Mean day time temperature recorded as 30.4°C & for the recent week 118.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.8/1.7 Knots.

Skardu

Dry weather reported from Skardu during the week; however, cloudiness in the morning/evening recorded as 2.0/5.8 Oktas while, average relative humidity observed as 37%. Mean day time temperature recorded as 28.3°C & for the recent week 97.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/3.3 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)

Land has been prepared for upcoming Kharif crop.

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)

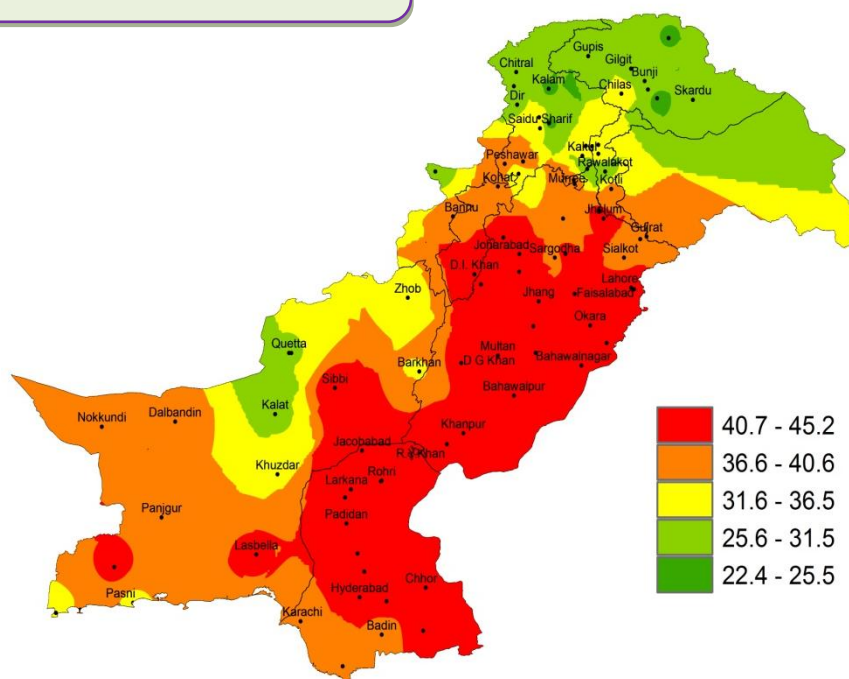
There is presently one crop (irrigated conditions) grown in the fields of RAMC Quetta.

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

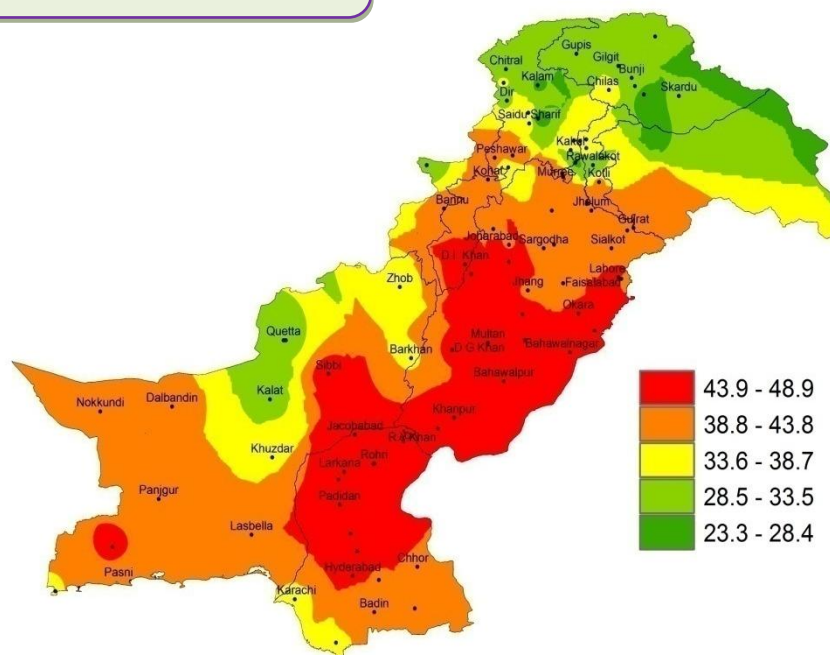
Eastern Balochistan (Usta Muhammad)

Land has been prepared for upcoming Kharif crop.

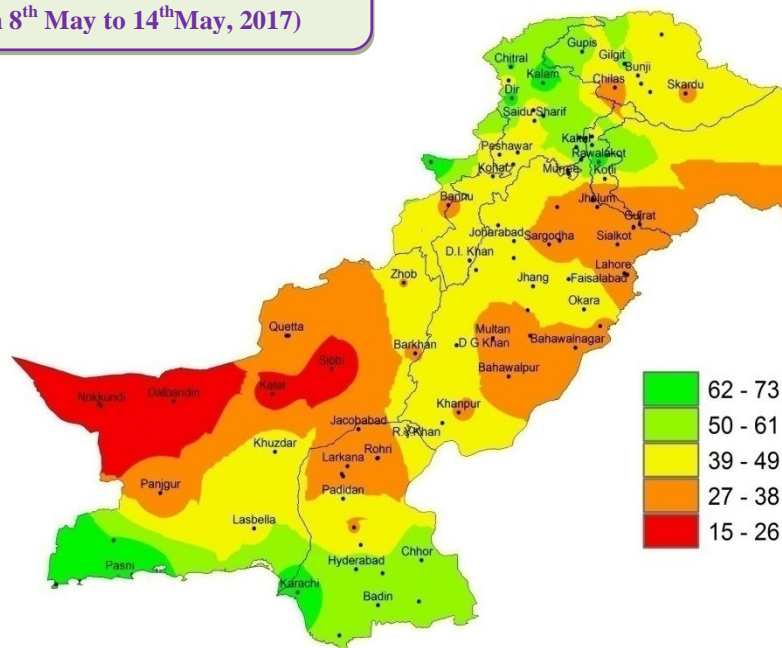
Mean Maximum Temperature (°C) during the
Previous week (from 8th May to 14th May, 2017)



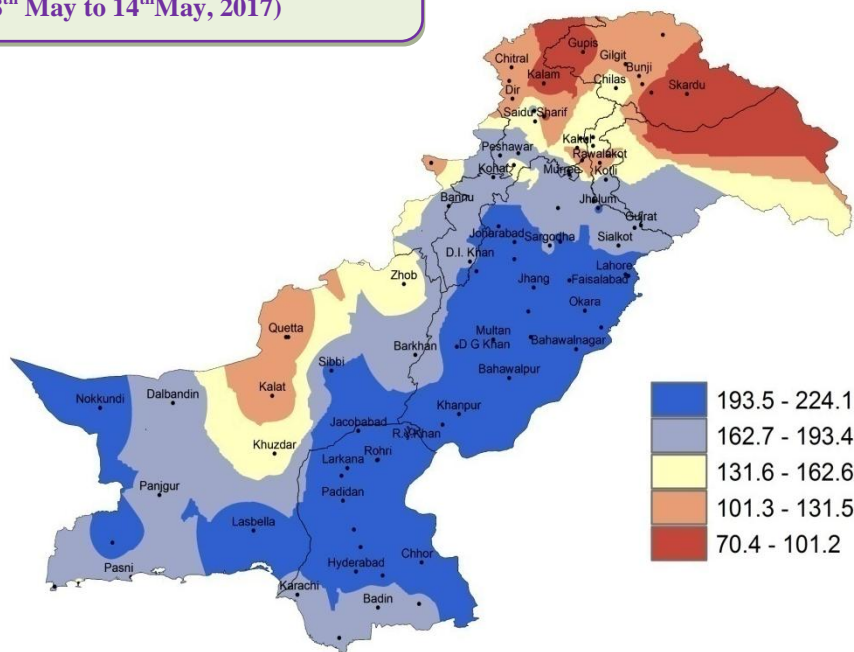
Highest maximum Temperature (°C) during the
Previous week (from 8th May to 14th May, 2017)



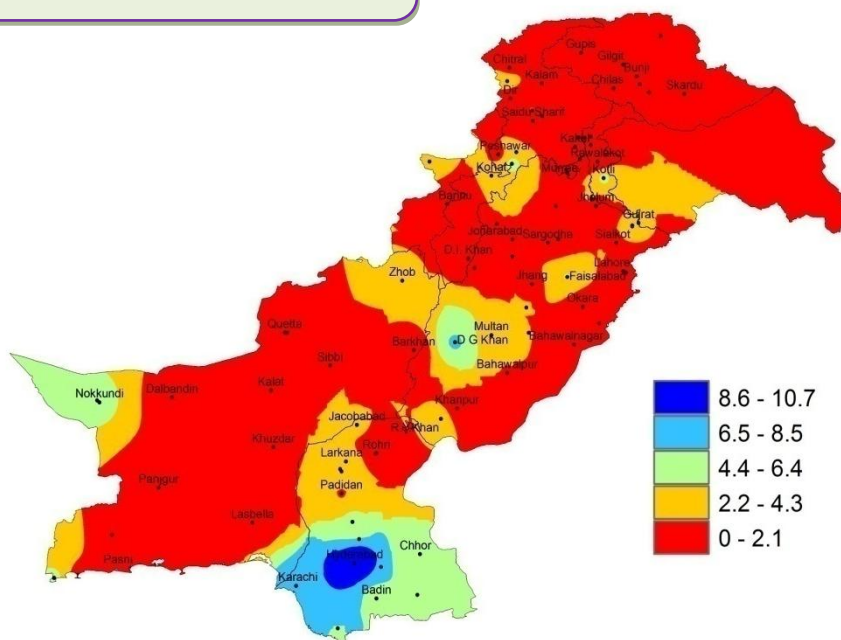
Mean Relative Humidity (%) during the
Previous week (from 8th May to 14th May, 2017)



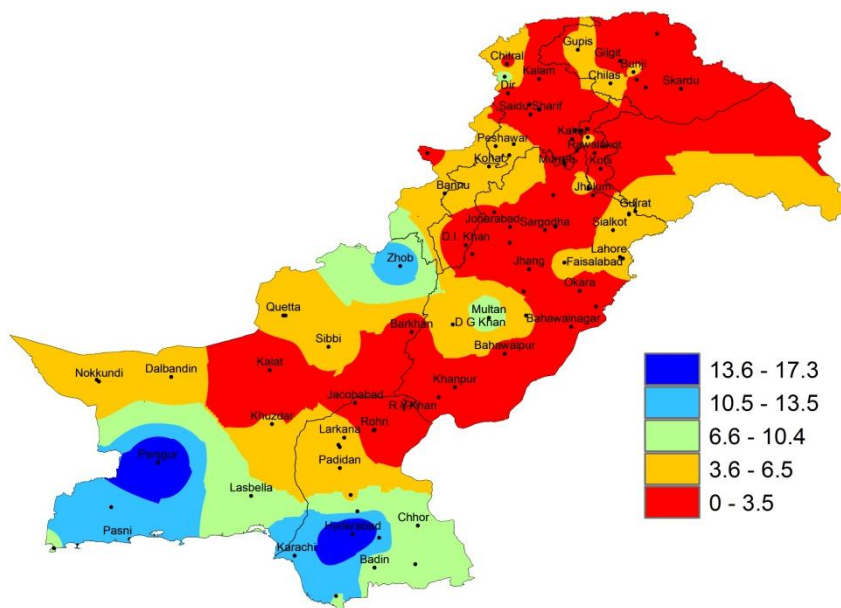
Total Growing Degree Days accumulated during the
Previous week (from 8th May to 14th May, 2017)



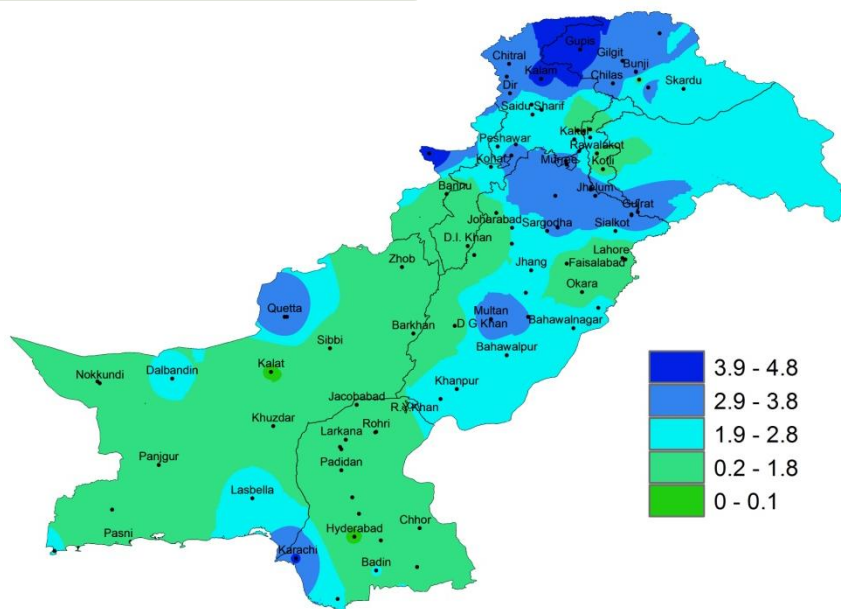
Mean Wind Speed (Knots) at 0800PST during the
Previous week (from 8th May to 14th May, 2017)



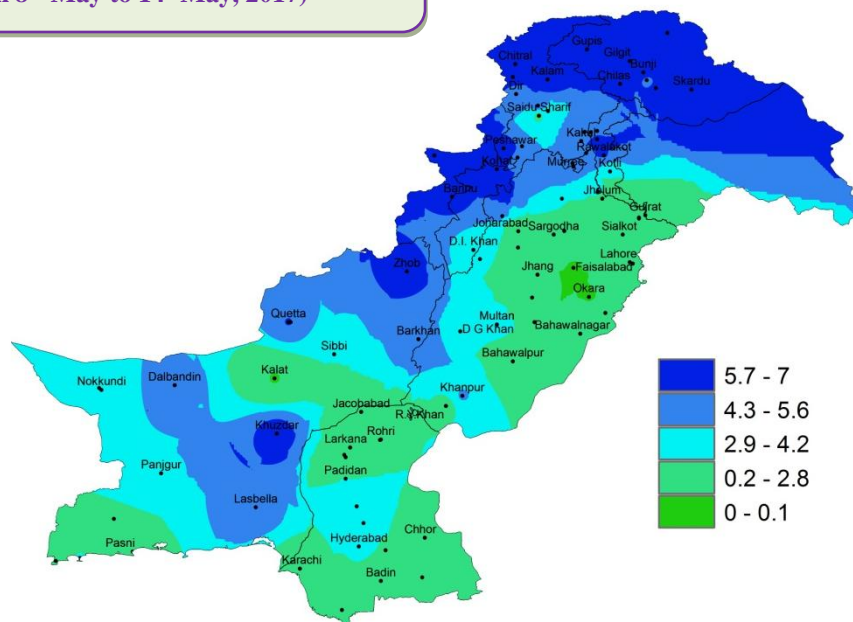
Mean Wind Speed (Knots) at 1700PST during the
Previous week (from 8th May to 14th May, 2017)



Mean Cloudiness (Oktas) at 0800PST during the
Previous week (from 8th May to 14th May, 2017)



Mean Cloudiness (Oktas) at 1700PST during the
Previous week (from 8th May to 14th May, 2017)



Weekly Weather Advisory for Farmers
(from 15th May to 21th May, 2017)

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

MONDAY

15-05-2017

Mainly hot and dry weather is expected in most parts of the country. However, dust-thunderstorm/rain with gusty winds is expected at scattered places in Khyber Pakhtunkhwa, FATA, Kashmir, Gilgit-Baltistan, Islamabad, upper Punjab (Rawalpindi, Gujranwala, Lahore, Sargodha, Faisalabad divisions), while at isolated places in Quetta, Zhob, Kalat, Multan, Sahiwal, D.G.Khan and Bahawalpur divisions during evening/night. Dust storm is also expected in Sukkur, Shaheed Benazirabad and Larkana divisions.

TUESDAY

16-05-2017

Dust-thunderstorm/rain with gusty winds is expected at scattered places in Khyber Pakhtunkhwa, FATA, Kashmir, Gilgit-Baltistan, Islamabad, upper Punjab (Rawalpindi, Gujranwala, Lahore, Sargodha, Faisalabad divisions), while at isolated places in Quetta, Zhob, Kalat, Multan, Sahiwal, D.G.Khan and Bahawalpur divisions. Hot and dry weather is expected in the rest of the country.

WEDNESDAY

17-05-2017

Dust-thunderstorm/rain with gusty winds is expected at scattered places in upper Khyber Pakhtunkhwa, FATA, Kashmir, Gilgit-Baltistan, Islamabad, upper Punjab (Rawalpindi, Gujranwala, Lahore, Sargodha, Faisalabad divisions), while at isolated places in Zhob, Multan, Sahiwal, D.G.Khan and Bahawalpur divisions. Hot and dry weather is expected in the rest of the country.

THURSDAY

18-05-2017

Mainly hot and dry weather is expected in most parts of the country. However, rain-thunderstorm is

expected at isolated places in Malakand division, Kashmir and Gilgit-Baltistan.

FRIDAY

19-05-2017

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

20-05-2017

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.

SUNDAY

21-05-2017

Mainly hot and dry weather is expected in most parts of the country. However, rain-thunderstorm is expected at a few places in Kashmir and Gilgit-Baltistan.

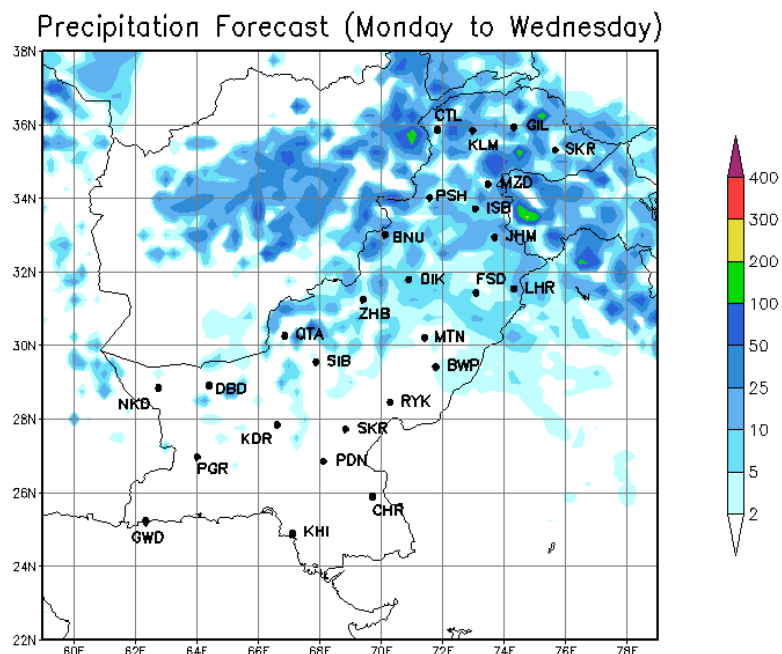
ADVISES FOR FARMERS

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

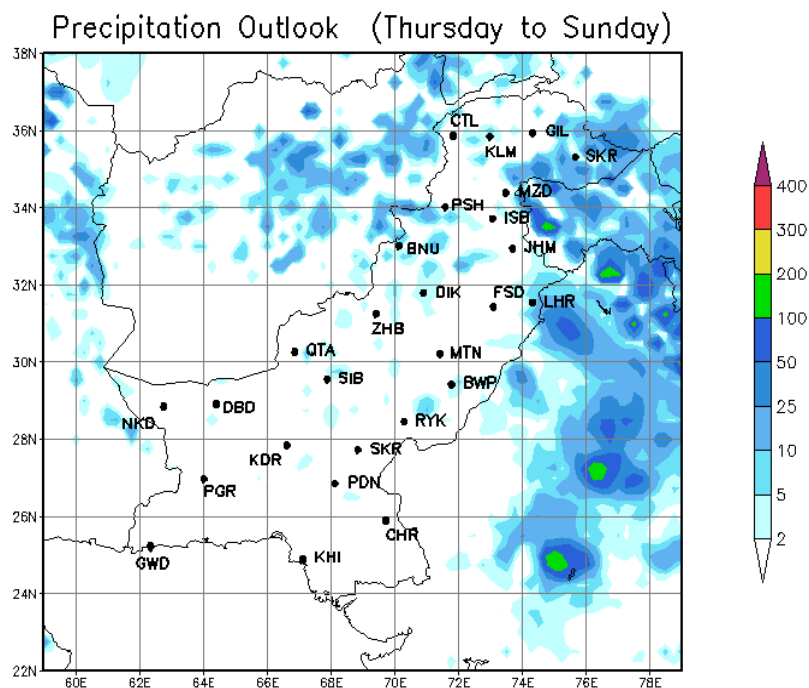
- Farmers of southern Punjab and Sindh are advised to complete the sowing of cotton and other Kharif crops to utilize the maximum soil moisture.
- In the upper half of the country where the fields which are just vacated after the recent wheat crops, the fields may be ploughed and "Suhaga" applied to conserve the soil moisture for the upcoming Kharif crops.

Weather Outlook from 15th May to 21st May, 2017

The forecast from 15th to 17th May, 2017 shows that light to moderate rainfall is expected at scattered places in KP, northern Balochistan, northern Punjab, GB and Kashmir.



The outlook from 18th to 21st May, 2017 shows that light to moderate rainfall is expected at particular places in lower KP, northeastern Punjab, GB and Kashmir, whereas hot and dry weather is expected in rest of the country.



National Weather Data of Selected Cities
(Weekly Data from 8th May to 14th 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	22.7	24.5	69.8	44	6.10	3.2	5.7	1.7	2.7
Badin	39.0	41.0	184.6	52	0.00	1.8	1.0	5.7	9.2
Bahawalnagar	44.1	46.5	206.5	33	0.02	2.3	2.7	1.0	1.7
Bahawalpur	42.3	45.2	206.2	36	11.32	2.5	1.3	2.0	2.3
Balakot	34.0	36.0	146.4	50	4.00	1.5	4.7	0.0	2.0
Bannu	39.4	41.7	172.7	35	2.30	0.8	6.0	0.3	5.0
Barkhan	36.2	38.0	167.4	37	3.00	0.5	5.4	0.3	1.6
Bunji	30.4	31.7	128.6	44	6.00	4.0	7.0	1.3	4.3
Cherat	32.4	34.0	145.5	44	21.00	3.2	5.5	4.7	5.7
Chhor	43.1	43.6	210.8	52	0.00	1.7	1.5	4.3	7.3
Chilas	33.2	34.5	150.9	32	3.00	3.0	5.8	1.7	4.7
Chitral	29.3	33.4	116.8	62	4.60	3.2	6.5	1.3	2.7
D.G.Khan	42.0	44.5	203.5	47	12.00	1.3	3.3	6.7	6.0
D.I.Khan	41.8	44.5	186.0	48	0.02	0.3	3.3	0.7	0.3
Dalbandin	39.6	41.0	179.0	18	0.00	2.0	4.8	1.0	4.7
Dir	29.9	33.0	108.1	65	6.00	3.0	5.3	0.0	1.5
Drosh	29.9	33.6	119.7	43	11.50	3.3	5.7	3.7	8.7
Faisalabad	41.3	43.0	198.0	40	5.40	0.6	0.0	1.8	0.6
Garidopatta	34.6	36.5	149.0	60	11.50	2.3	6.5	0.0	5.0
Gawader	36.6	40.5	161.5	62	0.00	0.5	2.8	1.7	12.7
Gilgit	30.4	33.0	118.3	52	4.01	3.2	6.8	0.8	1.7
Gupis	25.8	29.0	91.1	51	3.00	4.3	6.7	1.0	4.0

Hyderabad	42.7	43.8	196.5	54	0.00	0.0	3.2	10.7	17.3
Islamabad	38.0	39.5	165.9	41	8.01	3.0	4.3	0.3	3.0
Jacobabad	44.2	47.5	220.0	36	1.01	1.3	2.2	2.3	1.3
Jhang	41.4	43.5	198.2	40	2.60	2.2	0.3	1.7	1.3
Jhelum	41.2	43.4	194.2	37	0.21	3.5	1.8	0.7	1.7
Jiwani	35.1	37.6	180.1	65	0.00	2.5	1.8	4.7	9.6
Kakul	32.0	34.0	131.2	53	0.03	2.3	5.5	0.3	1.3
Kalam	24.9	28.0	81.8	66	14.00	4.2	6.5	0.0	0.3
Kalat	29.5	31.0	110.3	24	0.00	0.0	0.0	0.0	0.0
Karachi	36.7	38.0	191.2	65	0.00	3.8	1.5	7.7	13.0
Khanpur	43.6	46.5	215.6	36	0.60	2.7	4.3	1.0	2.0
Khuzdar	36.0	38.0	152.4	43	5.00	1.3	6.4	0.7	3.6
Kotli	38.0	39.4	177.6	37	2.60	1.3	2.8	4.7	3.0
Lahore	40.9	43.0	202.1	35	0.02	0.8	1.3	1.3	4.0
Larkana	45.2	47.5	224.1	34	0.01	1.0	2.0	2.7	5.3
Lasbella	41.3	43.3	204.8	49	0.02	2.2	5.2	0.0	6.8
Lower Dir	36.7	38.5	173.5	40	4.00	2.0	5.2	2.3	1.7
M.B Din	41.3	43.2	196.4	37	1.00	3.0	2.3	0.3	1.0
Malam Jabba	22.1	23.0	86.6	54	41.00	2.8	4.2	0.0	0.0
Mangla	40.7	42.2	191.1	31	0.20	3.8	3.2	2.3	4.7
Mir Khani	30.8	33.0	121.7	44	14.00	1.2	5.2	0.8	2.3
Moinjodaro	43.5	46.0	210.3	34	0.00	1.0	1.8	4.0	5.0
Multan(PBO)	41.9	45.2	210.5	31	0.02	3.5	3.2	3.3	7.7
Murree	25.4	27.0	102.5	52	3.02	2.8	5.0	1.3	3.0
Muzaffarabad	33.4	36.5	136.5	66	6.00	1.7	4.7	0.0	1.5
Nawabshah	43.6	45.5	207.3	37	0.01	1.0	3.8	4.8	6.2

Nokkundi	40.5	41.0	202.3	15	0.01	1.3	3.2	5.0	4.0
Okara	41.6	44.0	202.1	42	3.01	1.3	0.0	0.3	3.0
Padidan	42.9	48.0	200.3	41	0.00	0.8	2.8	2.0	5.6
Panjgur	39.1	40.0	190.0	32	8.00	0.3	4.0	0.0	16.0
Parachinar	27.7	28.5	119.0	73	24.00	4.8	5.7	3.3	3.0
Pasni	35.6	39.5	180.0	73	0.00	0.6	1.5	0.0	10.7
Pattan	33.8	36.0	153.0	38	6.00	1.5	4.7	0.0	0.7
Peshawar	38.1	40.5	185.3	46	4.03	2.3	6.0	1.7	5.0
Quetta	30.4	32.2	129.4	28	4.60	4.0	5.6	2.1	3.3
Rahim Yar Khan	44.8	47.6	219.6	48	0.01	1.8	2.2	3.0	2.7
Rawalakot	27.7	29.2	101.3	67	8.00	1.7	5.7	0.0	1.2
Rawalpindi	39.0	40.5	183.9	43	0.60	2.0	3.1	0.5	1.4
Rohri	43.7	45.5	222.3	36	0.01	1.2	2.6	1.0	0.4
Sahiwal	42.2	44.5	205.6	37	0.01	2.0	1.0	1.7	2.3
Saidu Sharif	34.6	36.0	148.9	48	4.00	1.8	2.2	0.0	1.7
Sialkot	39.8	41.9	189.5	28	0.01	3.3	2.0	2.5	5.0
Sibbi	44.5	47.0	198.7	22	0.00	1.0	2.8	2.0	4.8
Skardu	28.3	29.0	97.5	37	0.00	2.0	5.8	0.0	3.3
Tandojam	42.3	44.0	198.0	55	0.00	0.4	1.9	1.6	3.8
Usta.M	43.3	47.5	20.7	43	10.00	1.8	3.3	1.0	1.5
Zhob	34.1	36.0	151.6	38	0.00	0.4	6.0	3.0	12.2

*** 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 سبب 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)