

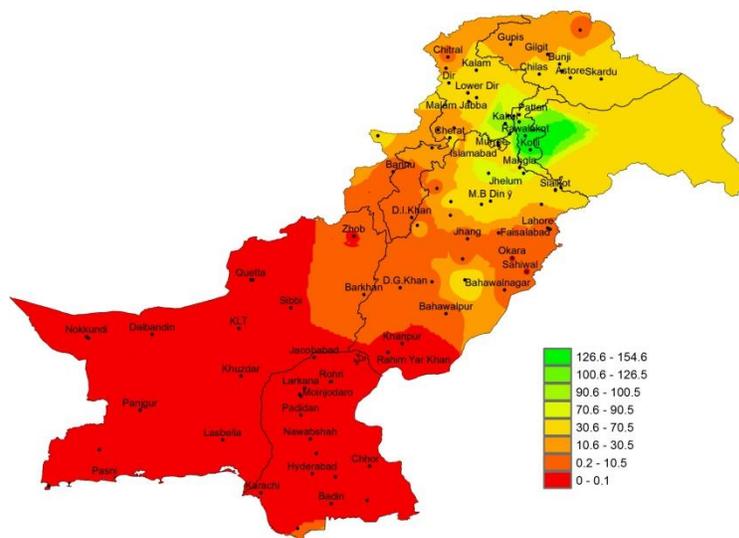
Weekly Weather and Crop Bulletin for Pakistan

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PAKISTAN METEOROLOGICAL
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**Rainfall Distribution (mm) during the
Previous Week (3rd to 9th April, 2017)**



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Highlights of Past Weather (from 3rd to 9th April, 2017)

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

Province wise distribution of rainfall reported as follows:

- Light to moderate rainfall reported from several places of Khyber Pakhtunkhwa (KP), Gilgit-Baltistan (GB), Kashmir and Punjab.
- Light rainfall reported from isolated places of Balochistan.
- Dry weather reported from Sindh.

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

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

Editor: Dr. Dildar H. Kazmi (Meteorologist)

Past Weather of Provinces (from 3rd to 9th April, 2017)**Punjab**

Light to moderate rainfall reported from several places of Punjab during the week. Weekly maximum and minimum temperatures recorded as 31.1°C & 16.7°C respectively. For the recent week on average 132.5 growing degree days were accumulated by the end of the last week. Average relative humidity recorded as 50% and wind speed in the morning/evening recorded as 3.2/4.4 Knots. During the previous week the highest amount of rainfall was recorded as 91.3 mm at Murree & the highest maximum temperature was recorded as 43.3°C at Rahim Yar Khan.

Sindh

Dry weather reported from Sindh during the week. Weekly maximum and minimum temperatures recorded as 38.1°C & 20.6°C respectively. For the recent week, on average 171.0 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 37% and wind speed in the morning/evening recorded as 2.9/5.2 Knots. During the previous week the highest maximum temperature was recorded as 46.1°C at Dadu.

Khyber Pakhtunkhwa

Light to moderate rainfall reported from several places of Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 21.6°C & 9.3°C respectively. For the recent week on average 72.6 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 61% and wind speed in the morning/evening recorded as 1.2/2.0 Knots. During the previous week the highest amount of rainfall was recorded as 101.5 mm at Kakul & the highest maximum temperature was recorded as 36.0°C at D.I.Khan.

Balochistan

Light rainfall reported from isolated places of Balochistan during the week. Weekly maximum and minimum temperatures recorded as 30.6°C & 15.3°C respectively. For the recent week on average 125.7 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 36% and wind speed in the morning/evening recorded as 2.9/7.1 Knots. During the previous week the highest amount of rainfall was recorded as 1.0 mm at Bhakkar & the highest maximum temperature was recorded as 44.5°C at Turbat.

Gilgit-Baltistan and Azad Jammu & Kashmir

Light to moderate rainfall reported from several places of Gilgit-Baltistan & Kashmir during the week. Weekly maximum and minimum temperatures recorded as 16.4°C & 6.8°C respectively. For the recent week on average 51.3 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 65% and wind speed in the morning/evening recorded as 1.1/3.0 Knots. During the previous week the highest amount of rainfall was recorded as 155.8 mm at Rawalakot & the highest maximum temperature was recorded as 33.6°C at Kotli.

Past Weather for Major Agricultural Plains (from 3rd to 9th April, 2017)

Rawalpindi (Potohar region)

Rainfall reported as 59.3 mm from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 4.7/5.6 Oktas while, average relative humidity observed as 70%. Mean day time temperature recorded as 26°C & for the recent week 102.1 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.4/0.9 Knots.

Faisalabad (Central Punjab)

Rainfall reported as 8.5 mm from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 1.7/2.1 Oktas while, average relative humidity observed as 45%. Mean day time temperature recorded as 32.2°C & for the recent week 140.2 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.3/1.8 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 47%. Mean day time temperature recorded as 37.1°C & for the recent week 159.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.6/2.8 Knots.

Usta Muhammad (Eastern Balochistan)

Dry weather reported from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded 0.6/0.3 Oktas while, average relative humidity observed as 43%. Mean day time temperature recorded as 32.5°C & for the recent week 154.4 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.8/2.8 Knots.

Quetta (Northern Baluchistan)

Rainfall reported as trace (not measureable) from Quetta during the week; however, cloudiness in the

morning/evening recorded as 1.6/3.6 Oktas while, average relative humidity observed as 34%. Mean day time temperature recorded as 20.8°C at the end of last week. Wind speed recorded in the morning/evening as 2.9/5.4 Knots.

Past Weather for Sub-Regional Agricultural Plains (from 3rd to 9th April, 2017)

Multan

Rainfall reported as 4.60 mm from Multan during the week; however, cloudiness in the morning/evening recorded as 1.4/2.0 Oktas while, average relative humidity observed as 44%. Mean day time temperature recorded as 37.3°C & for the recent week 146.9 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 6.6/4.6 Knots.

Lahore

Rainfall reported as 8.4 mm from Lahore during the week; however, cloudiness in the morning/evening recorded as 2.1/3.3 Oktas while, average relative humidity observed as 46%. Mean day time temperature recorded as 31.4°C & for the recent week 144.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.0/5.7 Knots.

Zhob

Dry weather reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 0.9/2.3 Oktas while, average relative humidity observed as 37%. Mean day time temperature recorded as 24.6°C & for the recent week 97.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 4.3/7.9 Knots.

Murree

Rainfall reported as 91.3 mm from Murree during the week; however, cloudiness in the morning/evening recorded as 5.0/5.0 Oktas while, average relative humidity observed as 63%. Mean day time temperature recorded as 13.8°C by the end of last week. Wind speed recorded in the morning/evening as 3.4/1.7 Knots.

D.I. Khan

Rainfall reported as 6.01 mm from D.I. Khan during the week; however, cloudiness in the morning/evening recorded as 0.4/2.7 Oktas while,

average relative humidity observed as 55%. Mean day time temperature recorded as 32.1°C & for the recent week 136.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.4/0.9 Knots.

Peshawar

Rainfall reported as 18.0 mm from Peshawar during the week; however, cloudiness in the morning/evening recorded as 2.3/4.0 Oktas while, average relative humidity observed as 59%. Mean day time temperature recorded as 26.3°C & for the recent week 107.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.7/2.9 Knots.

Kalam

Rainfall reported as 63.0 mm from Kalam during the week; however, cloudiness in the morning/evening recorded as 4.9/6.1 Oktas while, average relative humidity observed as 74%. Mean day time temperature recorded as 12.1°C by the end of last week. Wind speed recorded in the morning/evening as 0.0/1.1 Knots.

Gilgit

Rainfall reported as 22.8 mm from Gilgit during the week; However, cloudiness in the morning/evening recorded as 6.4/7.1 Oktas while, average relative humidity observed as 64%. Mean day time temperature recorded as 17.7°C & for the recent week 50.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/6.3 Knots.

Skardu

Rainfall reported as 68.7mm from Skardu during the week; however, cloudiness in the morning/evening recorded as 5.7/6.1 Oktas while, average relative humidity observed as 69%. Mean day time temperature recorded as 11.1°C by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.0 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 one crop (irrigated conditions) grown in the fields of RAMC Faisalabad.

Wheat: Very good condition, *Wax Maturity* stage completed.

Lower Sindh (Tandojam)

Land has been prepared for new crop.

Northern Balochistan (Quetta)

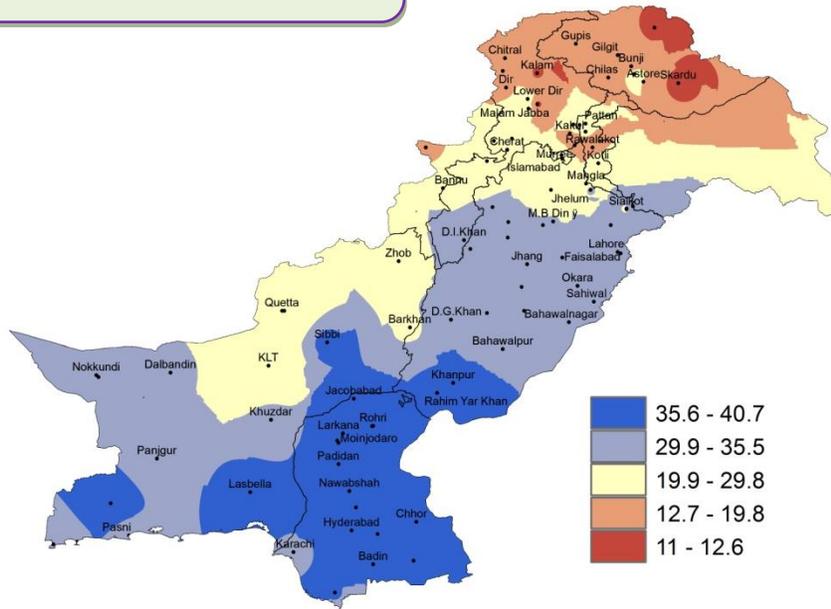
There is presently one crop (irrigated conditions) grown in the fields of RAMC Quetta.

Wheat (Local white): Good condition at *Heading* stage.

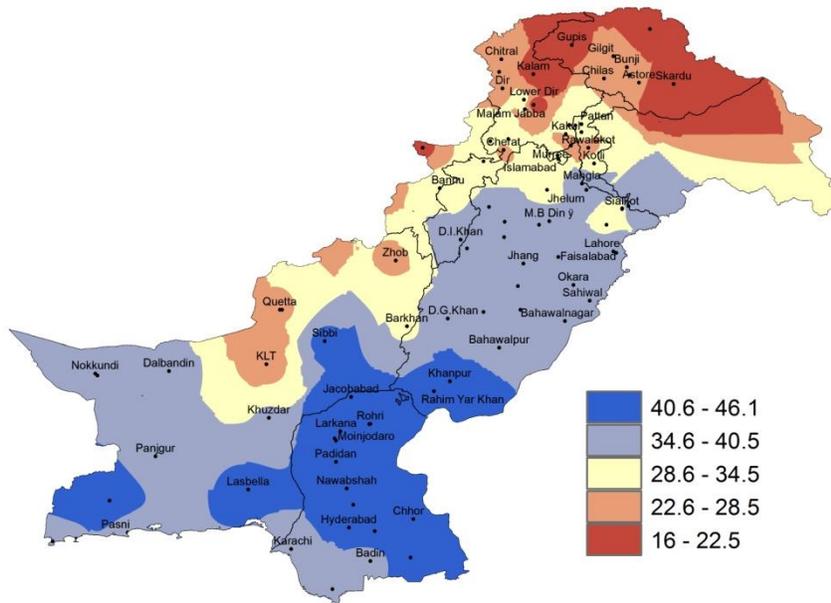
Eastern Balochistan (Usta Muhammad)

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

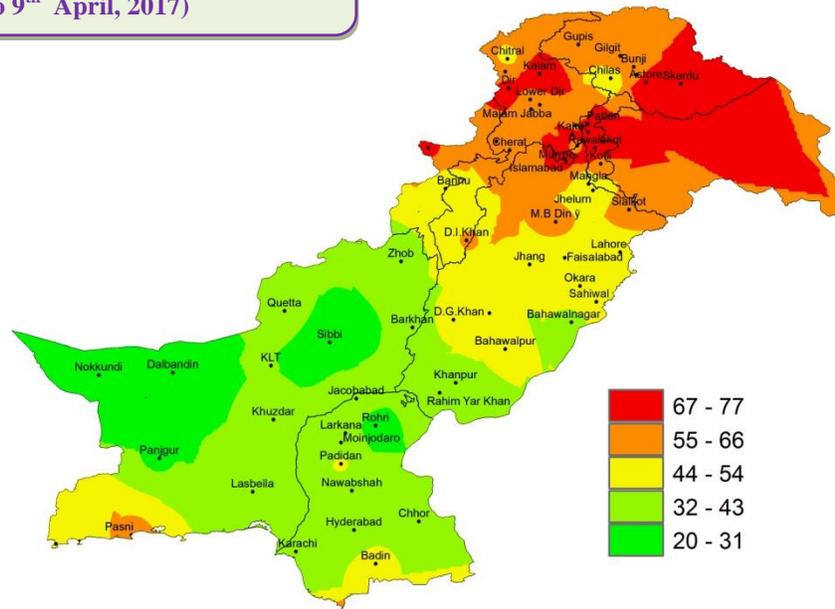
Mean Maximum Temperature (°C) during the Previous week (3rd to 9th April, 2017)



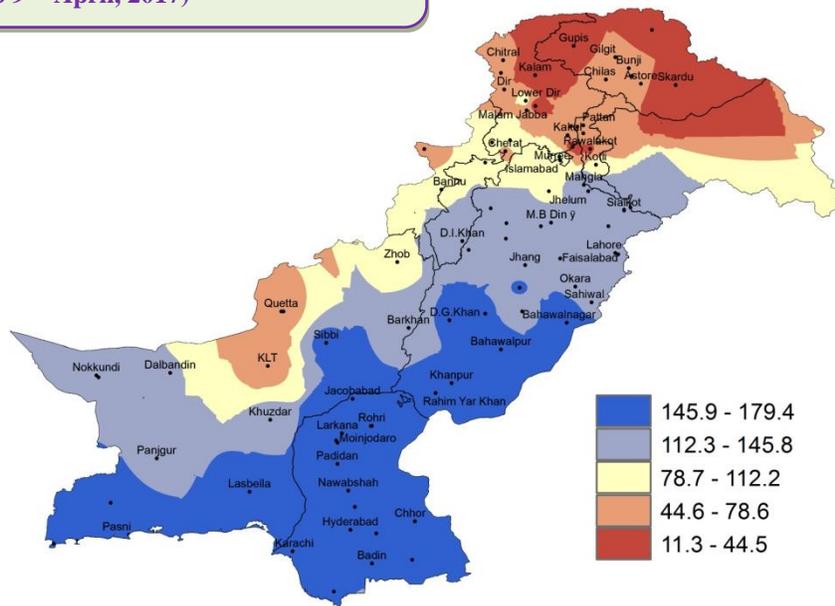
Highest maximum Temperature (°C) during the Previous week (3rd to 9th April, 2017)



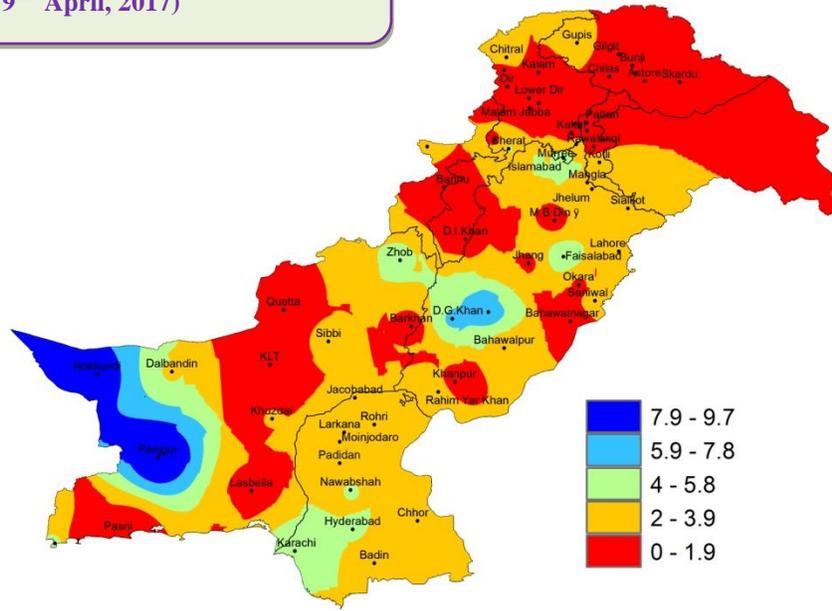
Mean Relative Humidity (%) during the Previous week (3rd to 9th April, 2017)



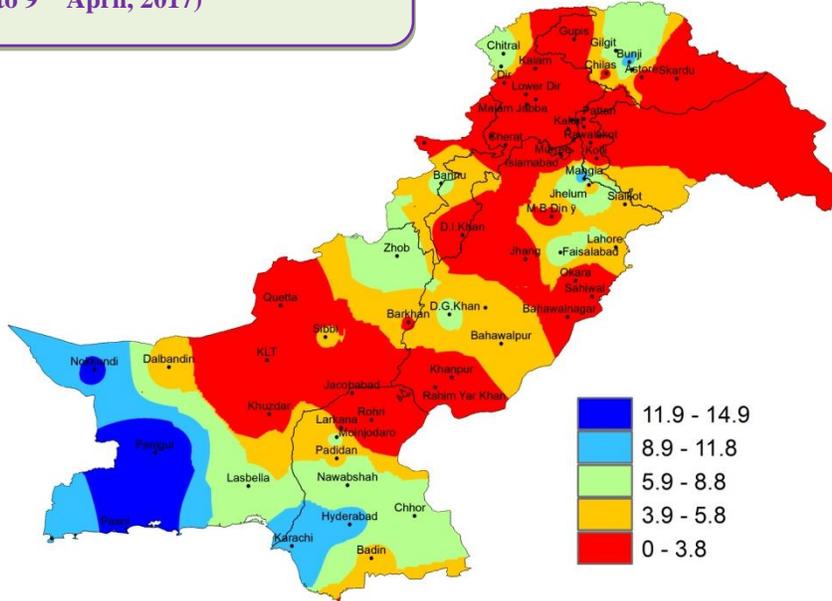
Total Growing Degree Days accumulated during the Previous week (3rd to 9th April, 2017)



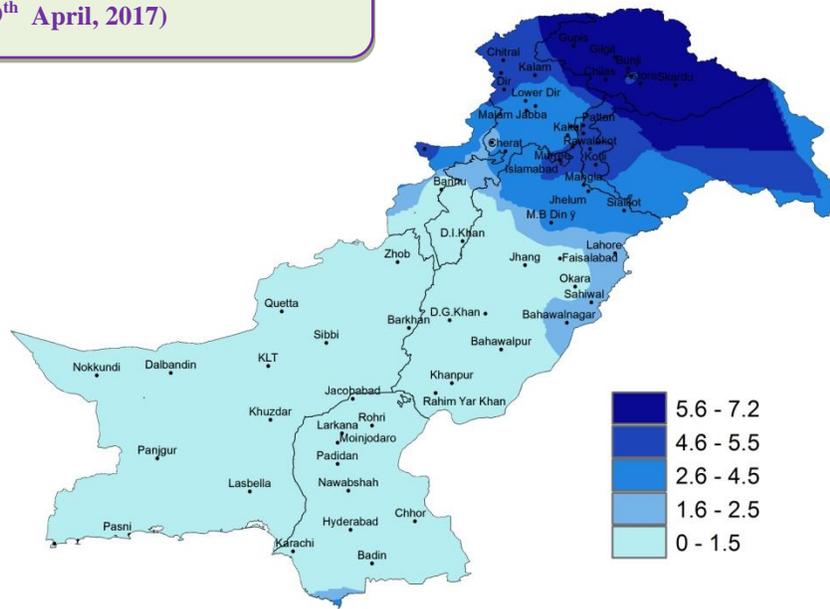
Mean Wind Speed (Knots) at 0800PST during the Previous week (3rd to 9th April, 2017)



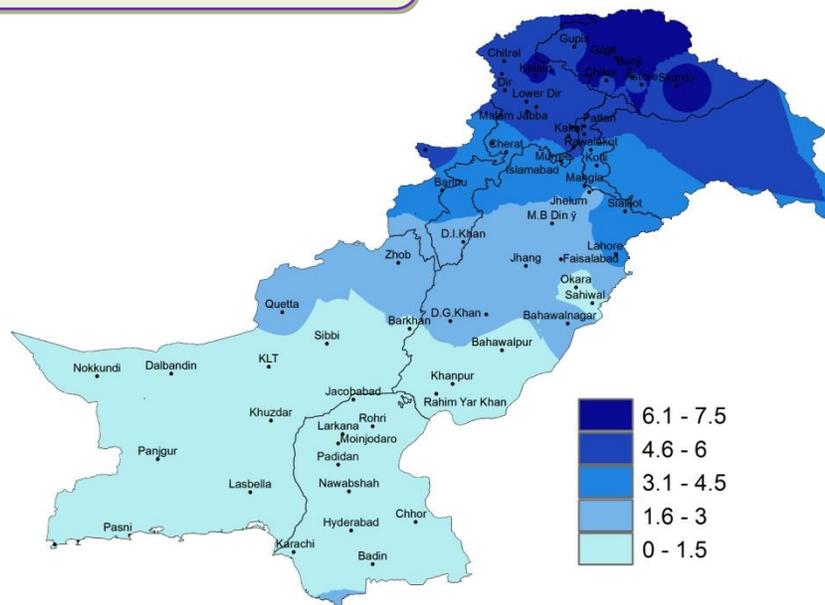
Mean Wind Speed (Knots) at 1700PST during the Previous week (3rd to 9th April, 2017)



Mean Cloudiness (Oktas) at 0800PST during the Previous week (3rd to 9th April, 2017)



Mean Cloudiness (Oktas) at 1700PST during the Previous week (3rd to 9th April, 2017)



Weekly Weather Advisory for Farmers**(from 10th to 16th April, 2017)**

Continental air is prevailing over most parts of the country.

MONDAY**10-04-2017**

Mainly dry weather is expected in most parts of the country, while hot and dry weather in Sindh and South Balochistan.

TUESDAY**11-04-2017**

Mainly dry weather is expected in most parts of the country, while hot and dry weather in Sindh, South Punjab and South Balochistan.

WEDNESDAY**12-04-2017**

Mainly dry weather is expected in most parts of the country, while hot and dry weather in Sindh, South Punjab and South Balochistan.

THURSDAY**13-04-2017**

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

FRIDAY**14-04-2017**

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

SATURDAY**15-04-2017**

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

SUNDAY**16-04-2017**

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

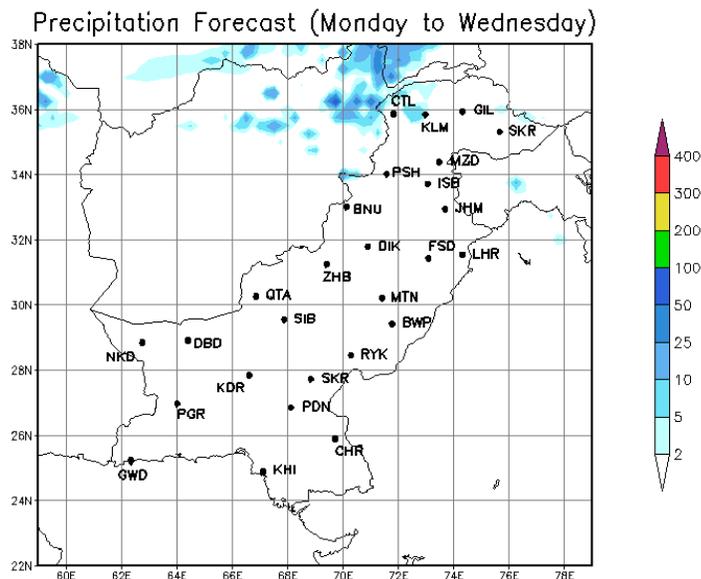
ADVISES FOR FARMERS

During the last week, light to moderate rainfall reported from most parts of the country except Sindh province. Dry weather is expected in the coming days in most parts of the country however, rain thunderstorm is expected at isolated places of Malakand division, Kashmir, Gilgit-Baltistan and South Balochistan. Keeping in view the expected weather conditions following advises are suggested for farming community.

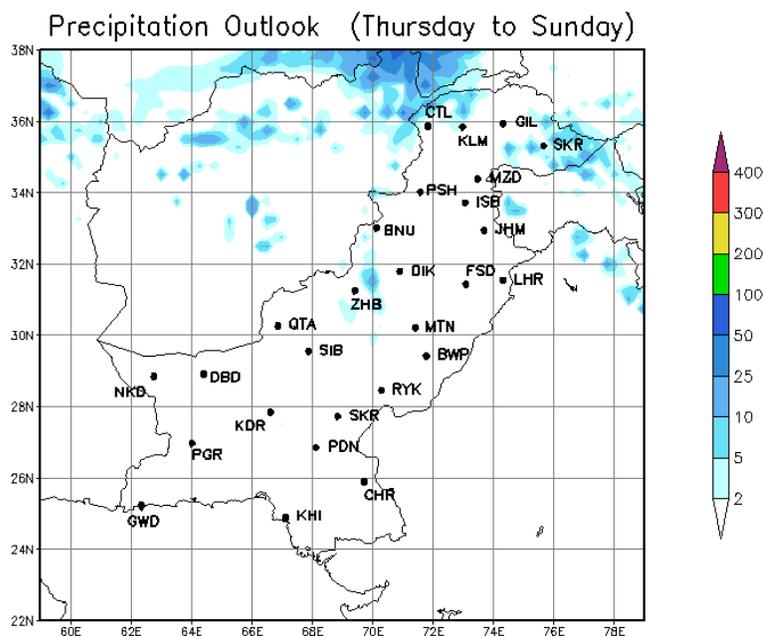
- Farmers of Punjab and southern KP may continue the harvesting of wheat crop.
- Farmers of irrigated areas may irrigate the crops as per requirement in accordance with the expected weather conditions.
- Removing weeds from the standing crops is very important as weeds utilize moisture and food which may be utilized by the crop. As a result considerable loss in yield occurs every year. However operations against weeds should be started using weedicides or manually when the crop completely covers the fields.

Weather Outlook from 10th to 16th April, 2017

The forecast from 3rd to 5th April, 2017 shows that that dry weather is expected in all parts of the country.



The outlook from 6th to 9th April, 2017 shows that dry weather is expected to prevail in the country with light rainfall at particular places in northwestern KP, GB and Kashmir.



National Weather Data of Selected Cities
(Weekly Data from to 3rd to 9th April, 2017)

Stations	Maximum/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							
Astore	9.1	17.0	***	75	65.00	6.3	6.0	0.9	1.1
Badin	36.6	39.0	169.0	47	0.00	0.0	0.0	3.1	4.9
Bahawalnagar	35.4	40.5	160.8	39	5.50	1.7	1.9	1.4	3.7
Bahawalpur	35.1	40.2	153.3	45	0.02	0.7	0.7	2.6	4.9
Balakot	20.4	30.5	72.1	61	87.00	4.3	5.7	2.1	1.1
Bannu	28.4	32.2	103.3	48	1.00	0.9	3.6	0.0	6.3
Barkhan	28.9	33.5	121.8	33	1.00	0.4	1.4	1.1	3.7
Bunji	18.0	23.9	60.5	60	41.62	7.3	7.6	0.3	10.6
Cherat	19.4	26.0	67.0	57	34.00	3.0	3.7	4.0	3.7
Chhor	38.9	41.5	171.6	33	0.00	0.0	0.0	3.1	6.6
Chilas	19.0	28.5	63.1	48	44.61	6.3	5.9	1.4	3.4
Chitral	18.2	24.4	53.6	51	4.31	5.1	5.9	4.0	6.9
D.G.Khan	34.6	39.0	153.6	49	1.70	1.0	1.7	6.0	6.3
D.I.Khan	32.1	36.0	136.3	55	6.01	0.4	2.7	1.4	0.9
Dalbandin	31.1	37.0	113.0	20	0.00	0.6	1.4	3.7	4.3
Dir	17.9	26.0	46.0	72	68.00	5.1	5.0	0.0	2.0
Drosh	18.0	25.0	47.5	60	13.00	4.9	5.9	0.9	6.3
Faisalabad	32.2	37.0	140.2	45	8.50	1.7	2.5	2.3	1.8
Garidopatta	20.4	32.3	72.6	72	125.40	4.9	5.0	1.1	1.7
Gawader	35.3	40.0	158.5	49	0.00	0.0	0.4	0.9	11.1
Gilgit	17.7	26.0	50.0	64	22.80	6.4	7.1	0.0	6.3
Gupis	13.4	18.5	24.0	56	13.00	6.1	5.9	3.1	2.6

Hyderabad	37.1	40.5	169.0	37	0.00	1.0	0.0	4.0	10.0
Islamabad	24.8	33.0	92.9	69	77.00	4.7	3.6	4.6	1.7
Jacobabad	36.6	42.5	164.3	39	0.00	0.0	0.3	2.0	2.0
Jhang	33.3	37.4	141.1	52	3.90	0.4	1.9	1.7	2.3
Jhelum	30.1	36.2	128.6	49	74.21	3.4	2.3	3.1	4.3
Jiwani	33.2	40.0	163.5	51	0.00	0.0	0.0	4.3	11.7
Kakul	19.6	28.5	58.4	69	101.50	3.1	4.7	0.0	2.0
Kalam	12.1	20.0	11.3	74	63.00	4.9	6.1	0.0	1.1
Karachi	35.1	37.8	167.4	41	0.00	1.4	0.0	5.0	10.3
Khanpur	35.8	41.0	155.3	39	0.00	0.6	0.9	0.9	2.6
Khuzdar	31.1	35.0	126.0	36	0.00	0.0	0.3	2.0	3.4
Kalat	20.3	25.0	52.5	31	0.00	0.0	0.0	0.0	0.0
Kotli	24.8	33.6	102.7	62	135.80	5.4	4.0	3.7	2.6
Lahore	31.4	36.2	144.5	46	8.43	2.1	3.3	2.0	5.7
Larkana	38.9	45.5	178.5	37	0.00	0.0	0.4	2.0	2.9
Lasbella	38.1	42.0	167.2	32	0.00	0.0	0.3	1.1	6.3
Lower Dir	24.1	31.5	90.5	63	29.00	3.4	5.1	0.3	1.7
M.B Din	29.9	35.8	122.0	57	66.00	2.7	2.6	1.4	3.4
Malam Jabba	10.8	17.0	15.3	63	60.00	3.6	5.7	0.0	0.0
Mangla	29.0	35.5	120.6	50	67.41	4.3	4.0	3.7	10.9
Mir Khani	21.1	23.2	52.5	60	35.40	4.6	5.3	0.7	6.2
Moinjodaro	37.9	44.0	161.8	32	0.00	0.0	0.0	3.3	6.7
Multan(PBO)	33.1	38.3	146.9	44	4.60	1.4	2.0	6.6	4.6
Murree	13.8	22.1	29.5	63	91.30	5.0	5.0	3.4	1.7
Muzaffarabad	20.2	31.4	69.3	68	89.50	4.3	5.6	1.1	3.1
Nawabshah	39.6	44.5	173.8	35	0.00	0.0	0.0	4.0	7.6

Nokkundi	30.9	38.5	136.5	22	0.00	0.7	0.6	8.5	12.0
Okara	32.6	36.2	143.2	53	0.01	1.3	1.3	1.7	2.3
Padidan	39.1	43.5	175.3	44	0.00	0.9	0.0	2.0	5.4
Panjgur	32.7	38.0	130.3	30	0.00	0.0	1.3	9.7	14.9
Parachinar	16.4	21.0	45.3	67	40.00	5.1	5.4	3.0	3.0
Pasni	34.1	38.0	155.8	57	0.00	0.0	0.0	0.3	12.7
Pattan	20.3	29.0	75.5	66	59.00	4.6	4.6	0.3	0.3
Peshawar	26.3	33.0	107.0	59	18.01	2.3	4.0	1.7	2.9
Quetta	20.8	26.8	70.0	34	0.01	1.6	3.6	2.9	5.4
Rahim Yar Khan	37.6	43.3	163.0	41	0.00	0.0	0.1	3.4	3.7
Rawalakot	16.2	25.5	39.1	77	155.80	4.7	4.1	0.6	0.9
Rawalpindi	25.9	34.5	102.1	70	59.30	4.7	5.6	0.4	0.9
Rohri	37.8	43.0	176.8	27	0.00	0.0	0.0	2.3	0.6
Sahiwal	33.3	37.5	140.9	48	0.02	1.9	1.4	2.3	2.3
Saidu Sharif	22.8	29.6	78.2	61	31.00	2.9	5.1	0.0	1.1
Sialkot	29.5	33.3	127.7	61	38.10	2.7	3.7	3.1	5.4
Sibbi	37.4	43.0	162.0	23	0.00	0.6	0.6	2.6	4.0
Skardu	11.1	19.6	13.8	69	68.71	5.7	6.1	0.0	0.0
Tandojam	37.1	41.0	159.3	47	0.00	0.0	0.0	0.6	2.8
Usta M	32.5	40.1	154.4	43	0.00	0.6	0.3	1.8	2.8
Zhob	24.6	27.5	97.3	37	0.00	0.9	2.3	4.3	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)