

Weekly Weather and Crop Bulletin for Pakistan

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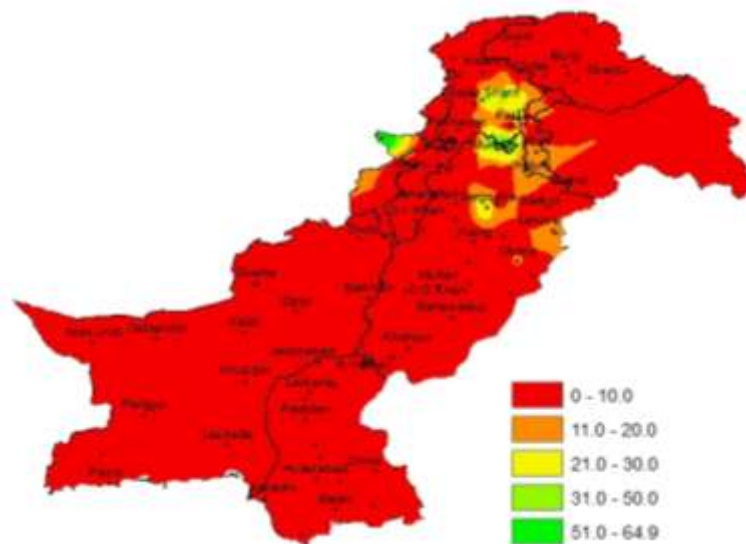
**Rainfall Distribution (mm) during the
Previous Week (from 18th to 24th July, 2016)**

Contents

Highlights of past weather (General)	1-2
Past weather for Agri Plains	3-4
Crop progress	4
Min Temperature maps	5
R.H and GDD	6
Wind speed maps	7
Cloudiness maps	8
Farmers advisory	9
National data for selected stations	10-12
AgMIP findings	13

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Highlights of Past Weather (from 18th to 24th July, 2016)

Slightly above normal day time temperature was reported in different parts of the country during the week.

Province wise distribution of rainfall reported as follows:

- Light to moderate rainfall was reported at many places in Khyber Pakhtunkhwa, Punjab, and Gilgit-Baltistan & Kashmir regions.
- Light rainfall was reported at few places in Balochistan.
- Light rainfall reported only at single station (Karachi=0.4mm) in Sindh.

Past Weather of Provinces (from 18th to 24th July, 2016)**Punjab**

Light to moderate rainfall reported at many places in Punjab during the week. Weekly maximum and minimum temperatures recorded 37.1°C & 26.5°C respectively. For the present season average 187.8 growing degree days accumulated by the end of last week. Average relative humidity recorded 66% and wind speed in the morning/evening recorded 2.7/2.9 Knots. During the previous week the highest amount of rainfall was recorded 102.0 mm at Islamabad & highest maximum temperature recorded 43.5°C at R.Y.Khan.

Sindh

Light rainfall reported only at single station (Karachi=0.4mm) in Sindh during the week. Weekly maximum and minimum temperatures recorded 38.5°C & 27.0°C respectively. For the present season average 193.7 growing degree days accumulated by the end of last week. Average relative humidity recorded 64% and wind speed in the morning/evening recorded 6.8/7.7 Knots. During the previous week the highest maximum temperature recorded 45.4°C at Dadu.

Khyber Pakhtunkhwa

Light to moderate rainfall reported at many places in Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded 34.6°C & 21.7°C respectively. For the present season average 161.8 growing degree days accumulated by the end of last week. Average relative humidity recorded 62% and wind speed in the morning/evening recorded 0.8/3.5 Knots. During the previous week the highest amount of rainfall was recorded 65.0 mm at Parachanar & the highest maximum temperature recorded 41.0°C at Bannu.

Balochistan

Light rainfall reported at few places in Balochistan during the week. Weekly maximum and minimum temperatures recorded 37.7°C & 25.6°C respectively. For the present season average 188.1 growing degree days accumulated by the end of last week. Average relative humidity recorded 51% and wind speed in the morning/evening recorded 2.0/6.8Knots. During the previous week the highest amount of rainfall was recorded 5.0mm at Quetta & highest maximum temperature was recorded 46.5°C at Dalbandin.

Gilgit-Baltistan and Azad Jammu & Kashmir

Light to moderate rainfall reported at many places in Gilgit-Baltistan & Kashmir regions during the week. Weekly maximum and minimum temperatures recorded 32.0°C & 18.3°C respectively. For the present season average 144.1 growing degree days accumulated by the end of last week. Average relative humidity recorded 54% and wind speed in the morning/evening recorded 0.4/3.0 Knots. During the previous week the highest amount of rainfall was recorded 65.0mm at Muzaffarabad & highest maximum temperature recorded 42.5°C at chilas.

Past Weather for Major Agricultural Plains (from 18th to 24th July, 2016)

Rawalpindi (Potohar region)

Rainfall reported as 42.4mm during the week; however cloudiness in the morning/evening recorded 3.2/2.1 Oktas while, average relative humidity observed as 71.4%. Mean day time temperature recorded 35.5°C & for the present season 163.4 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.7/1.4 Knots.

Faisalabad (Central Punjab)

Rainfall reported as 12mm during the week; however cloudiness in the morning/evening recorded 1.1/3.0 Oktas while, average relative humidity observed as 68%. Mean day time temperature recorded 38.4°C & for the present season 194.4 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.4/1.1 Knots.

Tandojam (Lower Sindh)

Dry weather was reported during the week; however cloudiness in the morning/evening recorded 3.1/0.7 Oktas while, average relative humidity observed as 68%. Mean day time temperature recorded 37.1°C & for the present season 185.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 4.6/6.8 Knots.

Quetta (Northern Baluchistan)

Rainfall reported as 6.4mm during the week however cloudiness in the morning/evening recorded 1.4/3.7 Oktas while, average relative humidity observed as 36%. Mean day time temperature recorded 34.8°C & for the present season 161.1 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.5/3.6 Knots.

Usta Muhammad (Eastern Balochistan)

Dry weather was reported during the week; however cloudiness in the morning/evening recorded 1.5/2.5 Oktas while, average relative humidity observed as 63%. Mean day time temperature recorded 40.3°C & for the present season 203.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.4/1.4 Knots.

Past Weather for Sub-Regional Agricultural Plains (from 18th to 24th July, 2016)

Multan

Dry weather was reported during the week however cloudiness in the morning/evening recorded 1.1/2.0 Oktas while, average relative humidity observed as 57%. Mean day time temperature recorded 38.8°C & for the present season 214.1 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 8.6/7.1 Knots.

Lahore

Rainfall reported as 25.8mm during the week; however cloudiness in the morning/evening recorded 4.1/4.3 Oktas while, average relative humidity observed as 67%. Mean day time temperature recorded 36.6°C & for the present season 183.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.6/2.0 Knots.

Zhob

Rainfall reported as 2.0mm during the week; however cloudiness in the morning/evening recorded 1.1/2.9 Oktas while, average relative humidity observed as 50%. Mean day time temperature recorded 37.2°C & for the present season 186.2 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 4.3/11.7 Knots.

D.I. Khan

Dry weather was reported during the week ; however cloudiness in the morning/evening recorded 1.1/1.9 Oktas while, average relative humidity observed as 71%. Mean day time temperature recorded 37.4°C & for the present season 191.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.6/0.6 Knots.

Peshawar

Rainfall reported as 0.1mm during the week; however cloudiness in the morning/evening recorded 1.9/2.6 Oktas while, average relative humidity observed as 62%. Mean day time temperature recorded 38.1°C & for the present season 192.1 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.0/4.0 Knots.

Murree

Rainfall reported as 37.1mm during the week; however cloudiness in the morning/evening recorded 4.7/6.9 Oktas while, average relative humidity observed as 82%. Mean day time temperature recorded 23.7°C & for the present season 104.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.7/0.9 Knots.

Kalam

Rainfall reported as 6mm during the week; however cloudiness in the morning/evening recorded 2.2/4.6 Oktas while, average relative humidity observed as 65%. Mean day time temperature recorded 27.1°C & for the present season 114.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/2.3 Knots.

Gilgit

Rainfall reported as 9.3mm during the week; however cloudiness in the morning/evening recorded 3.1/4.6 Oktas while, average relative humidity observed as 52%. Mean day time temperature recorded 33.7°C & for the present season 162.4 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/2.6 Knots.

Skardu

Rainfall reported as 1.1mm during the week; however cloudiness in the morning/evening recorded 2.7/4.3 Oktas while, average relative humidity observed as 40%. Mean day time temperature recorded 30.1°C & for the present season 135.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/2.6Knots.

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 condition) grown in the fields of RAMC Faisalabad.

Cotton: Good condition *Flowering* stage completed.

Lower Sindh (Tandojam)

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

Cotton: Good condition at *Flowering* stage.

Northern Balochistan (Quetta)

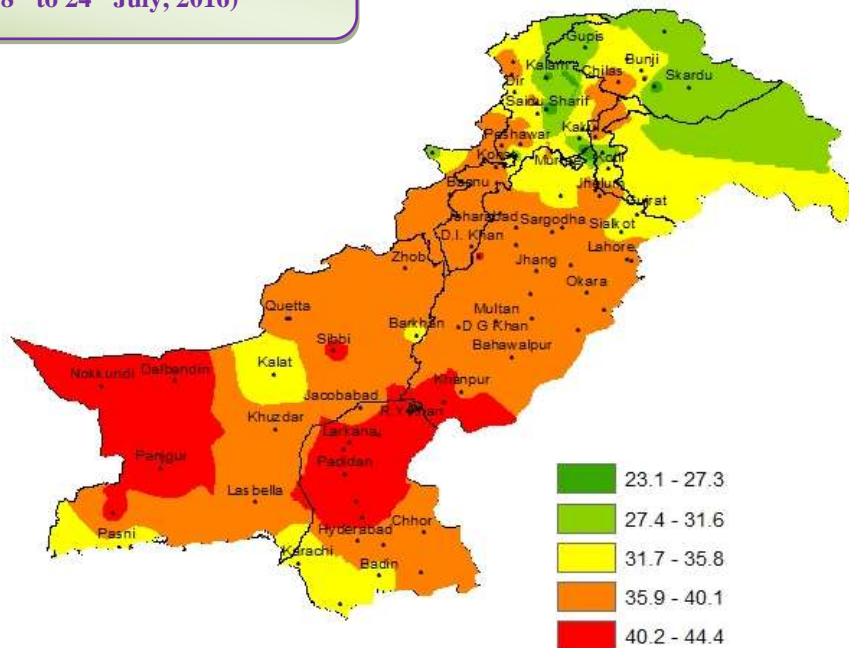
There is presently no crop grown in the fields of RAMC Quetta.

Eastern Balochistan (Usta Muhammad)

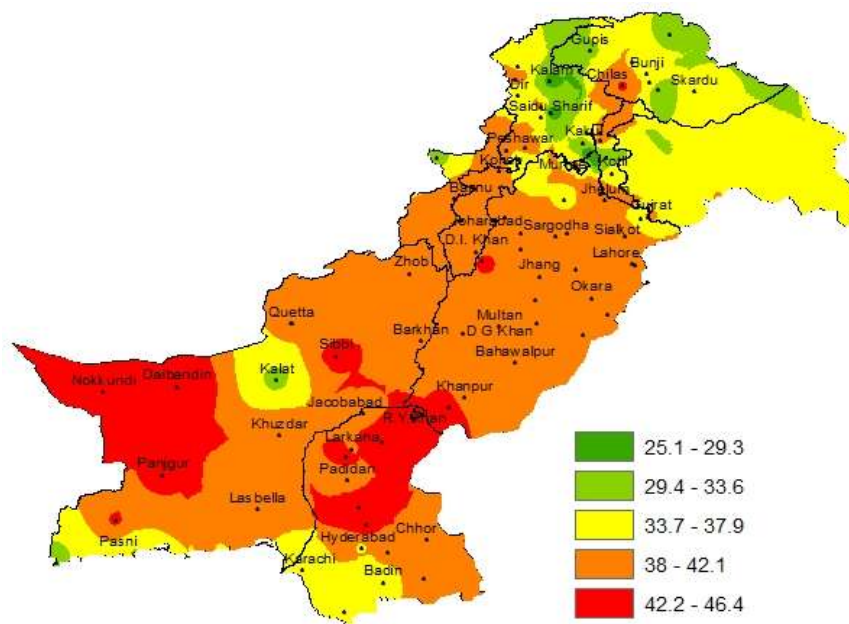
There is presently one crop (irrigated condition) grown in the fields of RAMC Usta Muhammad.

Rice: Good condition at *Third leaves* stage.

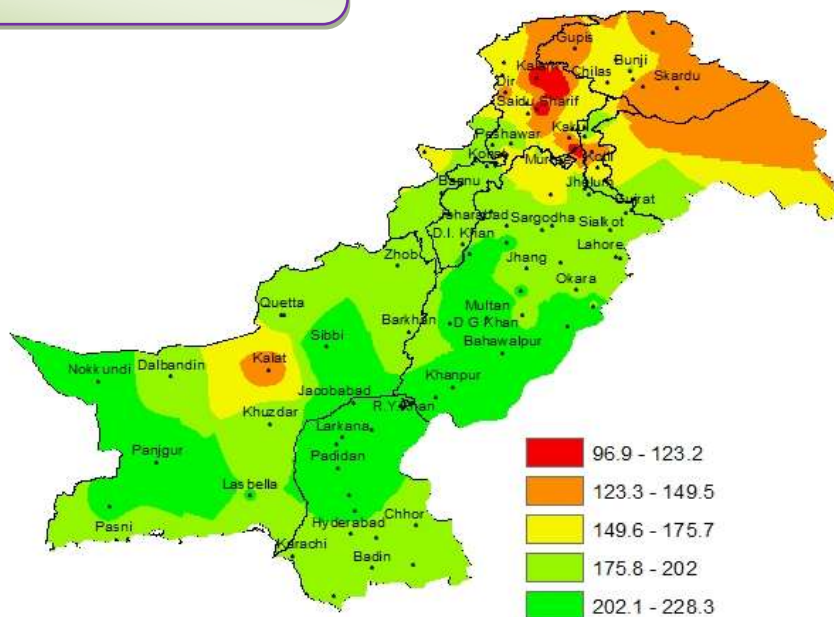
Mean Maximum Temperature (°C) during the Previous week (from 18th to 24th July, 2016)



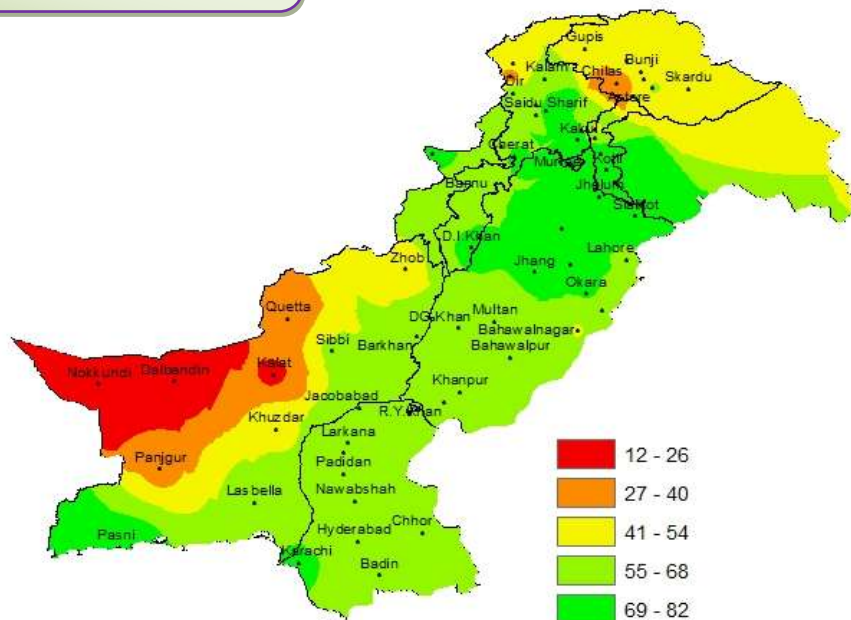
Highest Maximum Temperature (°C) during the Previous week (from 18th to 24th July, 2016)



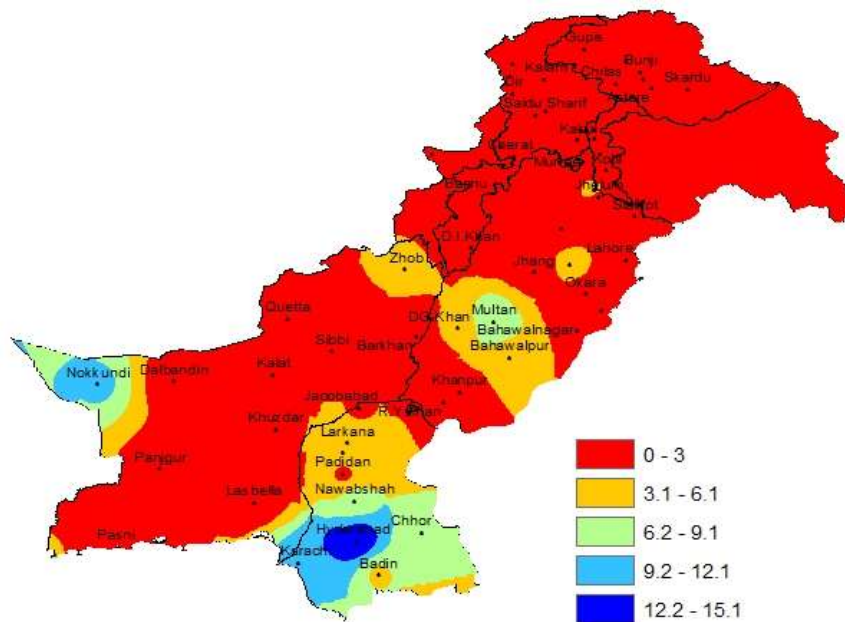
Total Growing Degree Days accumulated during the Previous week (from 18th to 24th July, 2016)



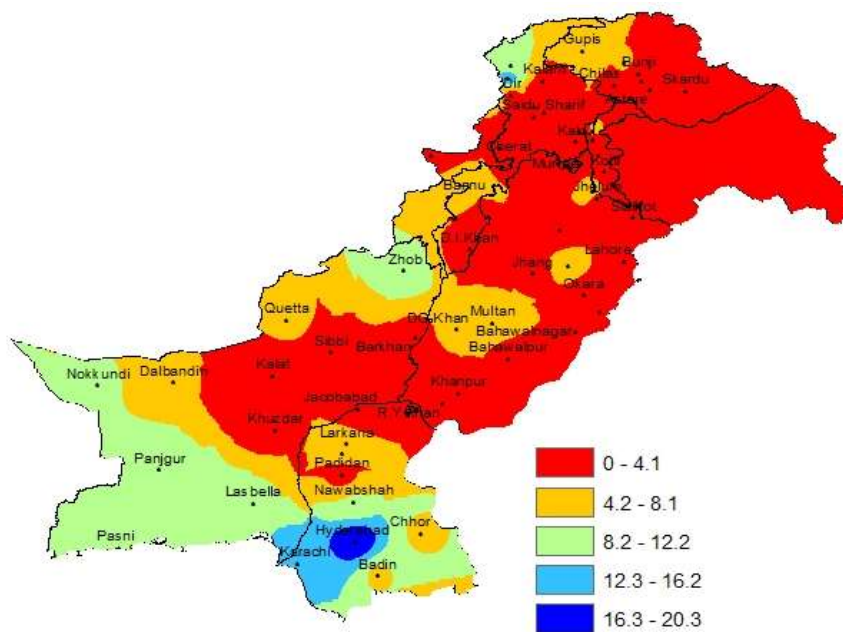
Mean Relative Humidity (%) during the Previous week (from 18th to 24th July, 2016)



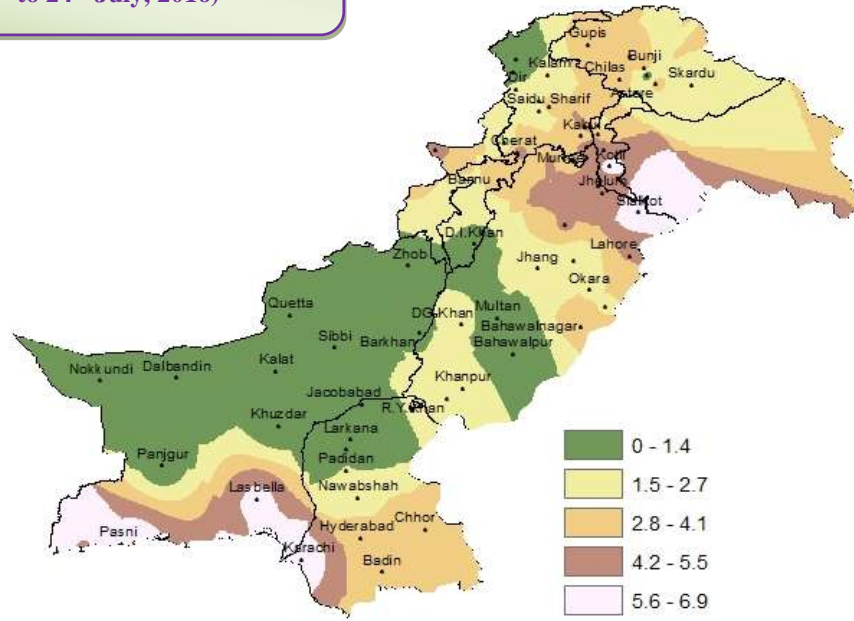
Mean Wind Speed (Knots) at 0300 PST during the Previous week (from 18th to 24th July, 2016)



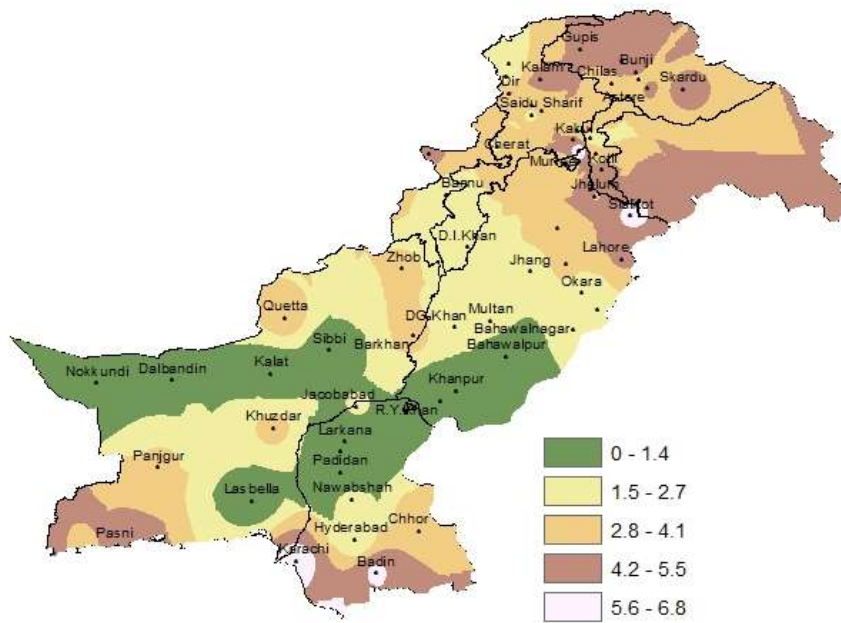
Mean Wind Speed (Knots) at 1200 PST during the Previous week (from 18th to 24th July, 2016)



Mean Cloudiness (Oktas) at 0800PST during the Previous week (from 18th to 24th July, 2016)



Mean Cloudiness (Oktas) at 1200 PST during the Previous week (from 18th to 24th July, 2016)



Weekly Weather Advisory for Farmers**(from 25th to 31st July, 2016)**

Seasonal low lies over north-Balochistan and its adjoining area with its trough extending north eastward. Monsoon currents are also penetrating upper parts of the country. A fresh westerly wave is also likely to enter upper parts of the country on Tuesday and may persist 02 to 03 days.

MONDAY**25-07-2016**

Rain-thunderstorm is expected at isolated places in Rawalpindi, Gujranwala, Lahore, Sargodha, Faisalabad, Malakand, Hazara, Peshawar, Mardan, Kohat, Zhob divisions, Islamabad, FATA and Kashmir.

There are also chances of landslides in Malakand, Hazara divisions, Kashmir and Gilgit-Baltistan.

Drizzle is also expected along Sindh-Makran coast. Hot and humid weather elsewhere in the country.

TUESDAY**26-07-2016**

Rain-thunderstorm with isolated heavy falls at scattered places in Rawalpindi, Gujranwala, Lahore, Sargodha, Faisalabad, Malakand, Peshawar, Hazara, Mardan, Kohat divisions, Islamabad, FATA and Kashmir. While at isolated places in Zhob division.

There are also chances of landslides in Malakand, Hazara divisions, Kashmir and Gilgit-Baltistan.

Drizzle is also expected along Sindh-Makran coast. Hot and humid weather elsewhere in the country.

an coast.

WEDNESDAY**27-07-2016**

Rain-thunderstorm with isolated heavy falls at number of places in Islamabad, upper Punjab(Rawalpindi, Gujranwala, Sargodha, Faisalabad & Lahore divisions), KP, FATA and Kashmir while at scattered places in Gilgit-Baltistan & south Punjab.

THURSDAY**28-07-2016**

Rain-thunderstorm with isolated heavy falls at number of places in Islamabad, upper Punjab(Rawalpindi, Gujranwala, Sargodha, Faisalabad & Lahore divisions), KP, FATA and Kashmir while at scattered places in Gilgit-Baltistan, south Punjab, eastern Balochistan while at isolated places in south-eastern Sindh. Light rain also expected Sindh-Makran coast.

FRIDAY**29-07-2016**

Scattered rain-thunderstorm (with isolated heavy falls) is expected in Islamabad, upper Punjab(Rawalpindi, Gujranwala, Sargodha, Faisalabad & Lahore divisions), upper KP, FATA, Islamabad, & Kashmir. While at isolated places in eastern Balochistan, south Punjab & south eastern Sindh.

SATURDAY**30-07-2016**

Scattered rain-thunderstorm is expected in Islamabad, upper Punjab(Rawalpindi, Gujranwala, Sargodha, Faisalabad & Lahore divisions)KP, FATA, Islamabad, & Kashmir while at isolated places in eastern Balochistan, south Punjab & south eastern Sindh.

SUNDAY**31-07-2016**

Mainly hot and humid weather is expected in most parts of the country during day time. However, rain-thunderstorm is expected at isolated places in Rawalpindi, Gujranwala, Lahore, Sargodha, Faisalabad, Malakand, Hazara, Peshawar, Mardan, Kohat, and Zhob divisions, Islamabad, FATA and Kashmir.

ADVISES FOR CROPS

- ❖ Farmers obtaining crop water through tube wells are advised to schedule the irrigation according to the expected weather mentioned during the decade.
- ❖ Farmers are advised to control further weeds growth at the present growing stages to stop any negative impact over the crops. Weeds removing practices should be started soon after expected rains in the mentioned.
- ❖ Farmers are advised to take in time precautionary measures to protect their crops, livestock and other property from any expected heavy rains.
- ❖ Pest/viral attacks are expected over cotton and sugarcane crops during hot and humid conditions during monsoon. Farmers should be very careful and take in time precautionary measures in this regard.
- ❖ Stagnant water due to heavy monsoon rains is fatal for standing crops like cotton. Farmers should take suitable measures to resolve the issue.

National Weather Data of Selected Cities
(Weekly Data from 18th to 24th July, 2016)

Stations	Maximum/Day time Temperature (°C)		Growing Degree Days	Relative Humidity (%)	Rainfa ll (mm)	Cloudiness (Oktas) 0800PST	Cloudiness (Oktas) 1700PST	Wind Speed (Knots) 0800PST	Wind Speed (Knots) 1700PST
	Mean	Highest							
Astore	25.1	30.0	123.8	56	6.3	3.1	4.4	0.3	0.9
Badin	35.1	37.0	181.5	66	3.0	3.0	5.7	5.4	7.1
Bahawalnagar	39.6	40.7	215.8	53	3.0	3.0	1.9	1.7	3.4
Bahawalpur	39.2	41.0	213.0	58	0.0	0.0	0.0	4.6	1.7
Balakot	33.5	35.5	156.8	68	20.0	4.4	4.0	0.3	0.3
Bannu	39.1	41.0	182.0	56	0.0	2.4	1.9	0.3	5.4
Barkhan	35.6	38.0	178.5	56	4.0	1.3	3.1	0.0	2.0
Bunji	33.2	36.7	179.7	49	5.8	3.7	5.3	0.6	2.3
Cherat	30.0	33.0	151.0	70	0.0	4.4	4.0	2.3	3.7
Chhor	36.7	39.2	189.1	64	0.0	3.6	3.9	6.3	7.1
Chilas	38.4	42.5	162.4	29	4.0	3.3	3.7	1.1	3.1
Chitral	35.8	37.6	163.2	48	0.0	0.0	1.9	0.6	8.3
D.I.Khan	37.4	39.5	191.0	71	0.0	1.1	1.9	0.6	0.6
Dalbandin	44.4	46.5	186.8	15	0.0	0.3	0.9	0.6	4.9
DG.Khan	38.0	39.5	206.4	63	0.2	1.6	1.9	4.3	6.0
Dir	33.1	35.0	143.8	65	4.0	1.9	4.1	0.9	2.3
Drosh	36.8	39.1	168.8	33	0.0	0.3	2.3	0.0	15.3
Faisalabad	38.4	40.5	194.4	68	12.0	1.1	3.0	1.4	1.1
Garidopatta	37.0	38.5	178.9	62	10.0	4.1	1.9	0.0	2.3
Gawader	33.3	34.0	186.8	78	0.0	5.3	3.7	0.0	11.4
Gilgit	33.7	37.5	162.4	52	9.3	3.1	4.6	0.0	4.9
Gupis	30.4	33.0	143.0	44	0.0	3.4	4.1	1.1	5.4

Hyderabad	36.6	37.5	187.5	64	0.0	3.9	1.4	15.1	20.3
Islamabad	35.6	38.5	172.0	68	64.2	3.9	2.7	0.9	1.7
Jacobabad	38.9	41.5	212.8	66	0.0	1.3	1.6	2.3	1.7
Jhang	37.8	39.4	187.9	70	0.0	1.9	1.9	0.6	2.6
Jhelum	37.1	39.0	181.9	71	20.0	4.4	4.0	2.0	2.3
Jiwani	32.1	32.5	180.8	74	0.0	6.9	4.6	4.3	10.9
Kakul	30.9	32.0	140.8	69	1.0	3.3	4.1	0.3	1.4
Kalam	27.1	28.5	114.5	65	6.0	2.2	4.6	0.0	2.3
Kalat	32.1	33.0	136.3	23	0.0	0.0	0.0	0.0	0.0
Karachi	32.6	34.5	183.7	69	0.4	6.4	6.1	11.1	12.6
Khanpur	39.7	40.8	206.7	60	2.0	2.1	0.3	2.0	0.9
Khuzdar	37.8	41.0	190.2	52	2.0	0.6	3.1	0.3	2.3
Kotli	34.1	36.1	164.5	70	19.1	5.9	4.4	0.6	2.3
Lahore	36.6	38.6	183.3	67	25.8	4.1	4.3	0.6	2.0
Larkana	40.5	42.0	211.0	58	0.0	0.9	0.0	5.4	4.9
Lasbella	39.7	40.5	202.3	61	0.0	5.7	0.3	0.3	10.3
Lower Dir	37.6	39.5	173.9	59	0.0	2.6	3.1	0.9	2.0
M.B Din	36.7	39.2	186.3	72	6.0	4.3	3.6	1.1	1.7
Malam Jabba	22.8	25.0	95.4	79	51.0	3.0	4.1	0.0	0.0
Mangla	35.9	39.0	180.9	69	15.8	4.9	4.7	4.0	6.6
Mir Khani	36.8	38.0	155.0	44	0.0	0.4	2.3	0.3	2.9
Moinjodaro	40.9	42.5	214.4	58	0.0	0.6	0.0	5.7	5.7
Multan	38.8	41.2	214.1	57	0.0	1.1	2.0	8.6	7.1
Murree	23.7	25.0	104.8	82	37.1	4.7	6.9	1.7	0.9
Muzaffarabad	34.8	36.6	162.2	68	65.0	4.4	3.9	0.3	2.9
Nawabshah	41.2	43.0	205.0	54	0.0	2.0	1.6	7.6	8.7

Nokkundi	44.3	45.5	215.8	12	0.0	0.0	0.0	10.0	8.6
Okara	37.9	40.0	200.7	69	14.1	2.7	1.7	1.4	1.4
Padidan	40.6	41.5	204.4	61	0.0	1.4	0.6	2.3	2.3
Panjgur	41.8	43.0	217.1	36	0.0	0.6	3.0	0.9	11.7
Parachinar	31.2	32.7	162.5	74	65.0	4.4	4.6	3.0	3.0
Pasni	33.0	33.5	184.8	74	0.0	6.3	4.7	2.6	9.4
Pattan	38.4	40.0	183.0	48	0.0	1.4	2.9	0.0	5.4
Peshawar	38.1	40.5	192.1	62	0.1	1.9	2.6	2.0	4.0
Quetta	34.8	37.3	161.1	36	6.4	1.4	3.7	2.5	3.6
R.Y.Khan	42.0	43.5	217.7	58	0.1	1.7	0.3	2.3	1.4
Rawalakot	27.9	29.5	127.5	82	4.0	4.6	2.9	0.0	0.6
Rawalpindi	35.5	38.0	163.4	71	42.4	3.2	2.1	1.7	1.4
Sahiwal	38.0	41.0	201.9	65	0.1	2.7	2.3	1.7	1.1
Saidu Sharif	34.6	36.0	160.8	63	3.0	2.4	2.3	0.0	0.6
Sialkot	35.0	37.4	182.8	72	6.0	6.6	5.7	2.3	0.9
Sibbi	40.4	43.0	228.3	57	0.0	0.3	0.3	0.6	2.0
Skardu	30.1	35.3	135.3	40	1.1	2.7	4.3	0.0	2.6
Tandojam	37.1	38.5	185.0	68	0.0	3.1	0.7	4.6	6.8
Usta.M	39.7	41.0	202.1	66	0.0	2.1	1.7	3.1	4.0
Zhob	37.2	40.5	186.2	50	2.0	1.1	2.9	4.3	11.7

*** 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 (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)