

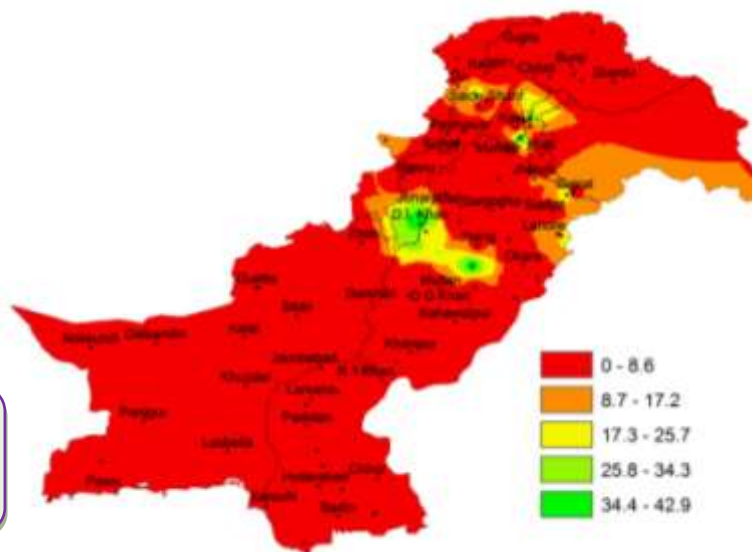
# Weekly Weather and Crop Bulletin for Pakistan

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**Rainfall Distribution (mm) during the  
Previous Week (from 19<sup>th</sup> to 25<sup>th</sup> September, 2016)**



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## Highlights of Past Weather (from 19<sup>th</sup> to 25<sup>th</sup> September, 2016)

Slightly above normal day time temperature was reported in Punjab, Khyber Pakhtunkhwa, Sindh and Balochistan, while mixed trend was reported in Gilgit Baltistan during the week.

Province wise distribution of rainfall reported as follows:

- Light to moderate rainfall was reported at many places in Punjab, Khyber Pakhtunkhwa and Gilgit-Baltistan.
- Dry weather was reported in Sindh and Balochistan.

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

**Editor-in-Chief: Dr. Azmat Hayat Khan (Director)**

**Editor: Asma Jawad Hashmi (Deputy Director)**

## Past Weather of Provinces (from 19<sup>th</sup> to 25<sup>th</sup> September, 2016)

### Punjab

Light to moderate rainfall reported at many places in Punjab during the week. Weekly maximum and minimum temperatures recorded as 36.0°C & 24.3°C respectively. For the present season on average 175.3 growing degree days were accumulated by the end of the last week. Average relative humidity recorded as 66% and wind speed in the morning/evening recorded as 1.2/2.1Knots. During the previous week the highest amount of rainfall was recorded as 40.0mm at Shorkot & highest maximum temperature was recorded as 42.5°C at Rahim Yar Khan.

### Sindh

Dry weather was reported in Sindh during the week. Weekly maximum and minimum temperatures recorded as 37.9°C & 24.2°C respectively. For the present season, on average 181.8 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 66% and wind speed in the morning/evening recorded as 4.7/5.8Knots. During the previous week the highest maximum temperature recorded as 45.5°C at Nawabshah.

### Khyber Pakhtunkhwa

Light to moderate rainfall reported at many places in Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 31.8°C & 18.7°C respectively. For the present season on average 141.6 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 63% and wind speed in the morning/evening recorded as 0.7/3.1Knots. During the previous week the highest amount of rainfall was recorded as 43.0mm at D.I.Khan & the highest maximum temperature recorded as 39.0°C at D.I.Khan.

### Balochistan

Dry weather was reported in Balochistan during the week. Weekly maximum and minimum temperatures recorded as 35.9°C & 21.5°C respectively. For the present season on average 165.8 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 47% and wind speed in the morning/evening recorded as 0.8/5.3 Knots. During the previous week the highest maximum temperature was recorded as 43.5°C at Nokkundi.

### 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 as 29.9°C & 14.9°C respectively. For the present season on average 122.1 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 56% and wind speed in the morning/evening recorded as 0.4/1.2Knots. During the previous week the highest amount of rainfall was recorded as 15.3mm at Bagrote & highest maximum temperature recorded as 38.5 °C at Chilas.

**Past Weather for Major Agricultural Plains  
(from 19<sup>th</sup> to 25<sup>th</sup> September, 2016)**

**Rawalpindi (Potohar region)**

Dry weather was reported during the week; cloudiness in the morning/evening recorded as 2.2/1.8 Oktas while, average relative humidity observed as 67%. Mean day time temperature recorded as 34.4°C & for the present season 168.2 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.9/1.4Knots.

**Faisalabad (Central Punjab)**

Rainfall reported as 1.0mm during the week; however cloudiness in the morning/evening recorded as 1.1/1.9Oktas while, average relative humidity observed as 64%. Mean day time temperature recorded as 36.7°C & for the present season 180.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.6/1.1 Knots.

**Tandojam (Lower Sindh)**

Dry weather was reported during the week; however cloudiness in the morning/evening recorded as 0.0/0.0Oktas while, average relative humidity observed as 67%. Mean day time temperature recorded as 38.2°C & for the present season 178.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.3/3.4Knots.

**Quetta (Northern Baluchistan)**

Dry weather was reported during the week; however cloudiness in the morning/evening recorded as 0.3/0.6Oktas while, average relative humidity observed as 27%. Mean day time temperature recorded as 32.5°C& for the present season 141.1 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.5/2.6Knots.

**Usta Muhammad (Eastern Balochistan)**

Dry weather was reported during the week; however cloudiness in the morning/evening recorded 0.2/0.0Oktas while, average relative humidity observed as 80%. Mean day time temperature recorded as 36.4°C & for the present season 184.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.5/1.1Knots.

**Past Weather for Sub-Regional Agricultural Plains (from 19<sup>th</sup> to 25<sup>th</sup> September, 2016)**

**Multan**

Rainfall reported as 2.6mm during the week; however cloudiness in the morning/evening recorded as 0.4/1.0Oktas while, average relative humidity observed as 59%. Mean day time temperature recorded as 37.4°C & for the present season 189.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 3.7/4.3 Knots.

**Lahore**

Rainfall reported as 30.2mm during the week; cloudiness in the morning/evening recorded as 1.6/3.1Oktas while, average relative humidity observed as 69%. Mean day time temperature recorded as 34.4°C & for the present season 173.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.6/1.4 Knots.

**Zhob**

Dry weather was reported during the week; however cloudiness in the morning/evening recorded as 0.0/0.7Oktas while, average relative humidity observed as 34%. Mean day time temperature recorded as 34.5°C & for the present season 151.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.1/5.6 Knots.

**D.I. Khan**

Rainfall reported as 43.0mm during the week; cloudiness in the morning/evening recorded as 1.0/0.4Oktas while, average relative humidity observed as 69%. Mean day time temperature recorded as 35.6°C & for the present season 171.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.3/0.9Knots.

**Peshawar**

Rainfall reported as 2.0mm during the week; cloudiness in the morning/evening recorded as 0.7/2.4Oktas while, average relative humidity observed as 71%. Mean day time temperature recorded as 35.2°C & for the present season 174.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.9/2.6Knots.

**Murree**

Rainfall reported as 38.6mm during the week; cloudiness in the morning/evening recorded as 2.1/3.4Oktas while, average relative humidity observed as 80%. Mean day time temperature recorded as 21.9°C & for the present season 90.9 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/1.1Knots.

**Kalam**

Dry weather was reported during the week; cloudiness in the morning/evening recorded as 2.3/3.4Oktas while, average relative humidity observed as 67%. Mean day time temperature recorded as 25.1°C & for the present season 82.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/2.3Knots.

**Gilgit**

Rainfall reported as 0.7mm during the week; cloudiness in the morning/evening recorded as 2.0/4.4Oktas while, average relative humidity observed as 60%. Mean day time temperature recorded as 30.6°C & for the present season 112.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.0 Knots.

**Skardu**

Dry weather was reported during the week; cloudiness in the morning/evening recorded as 1.4/3.7Oktas while, average relative humidity observed as 45%. Mean day time temperature recorded as 27.6°C & for the present season 90.9 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/1.1Knots.

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

**Potohar Region (Rawalpindi)**

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

**Maize:** Good condition at *Flowering* stage.

**Central Punjab (Faisalabad)**

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

**Cotton:** Very good condition at *Maturity* stage.

**Lower Sindh (Tandojam)**

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

**Cotton:** Good condition at *Boll opening* stage.

**Northern Balochistan (Quetta)**

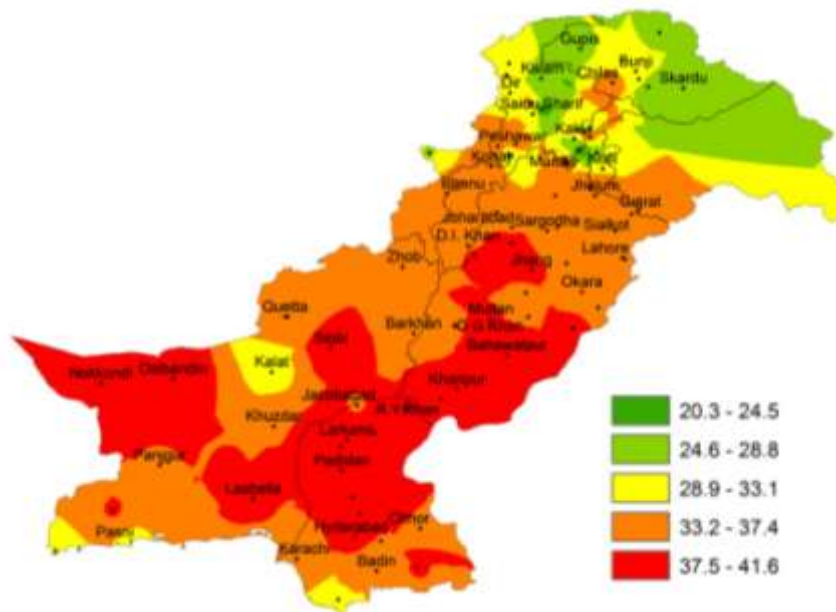
There is presently no crop grown in the fields of RAMC Quetta.

**Eastern Balochistan (Usta Muhammad)**

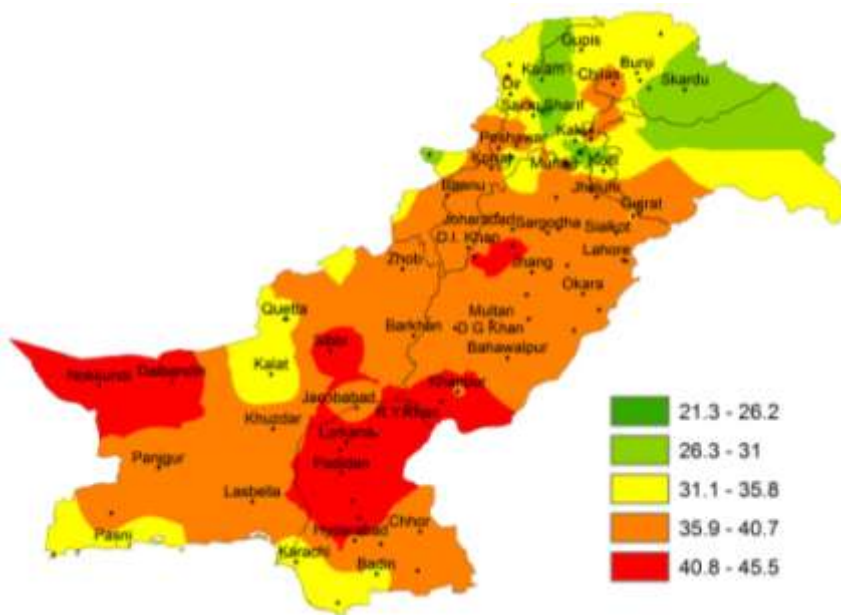
There is presently one crop (irrigated condition) grown in the fields of RAMC Usta Muhammad.

**Rice:** Good condition at *Shooting* stage.

Mean Maximum Temperature (°C) during the Previous week (from 19<sup>th</sup> to 25<sup>th</sup> September, 2016)

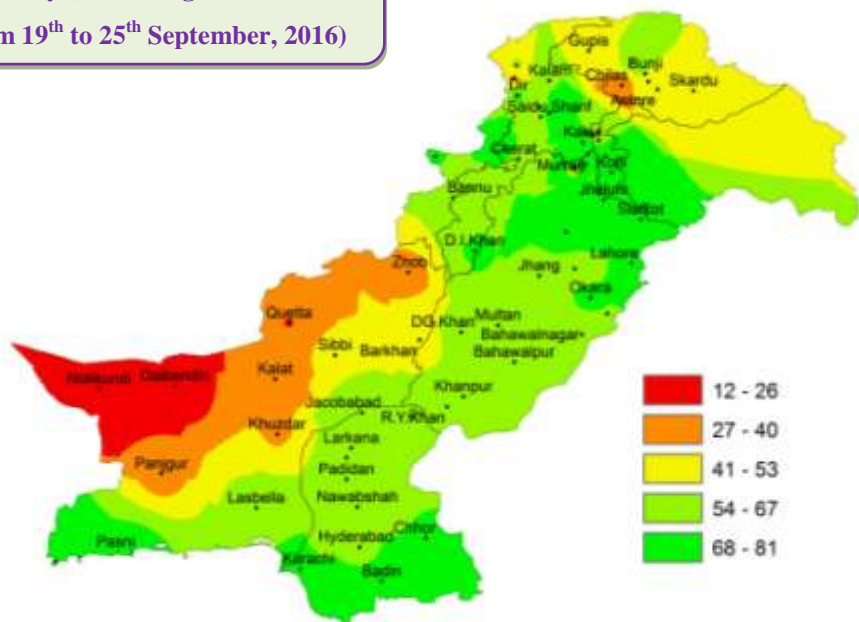


Highest Maximum Temperature (°C) during the Previous week (from 19<sup>th</sup> to 25<sup>th</sup> September, 2016)

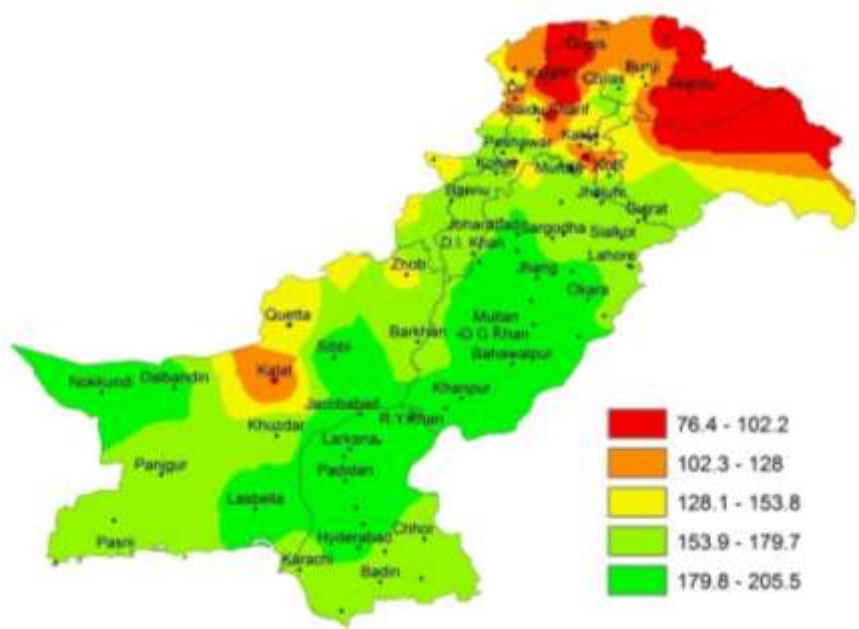




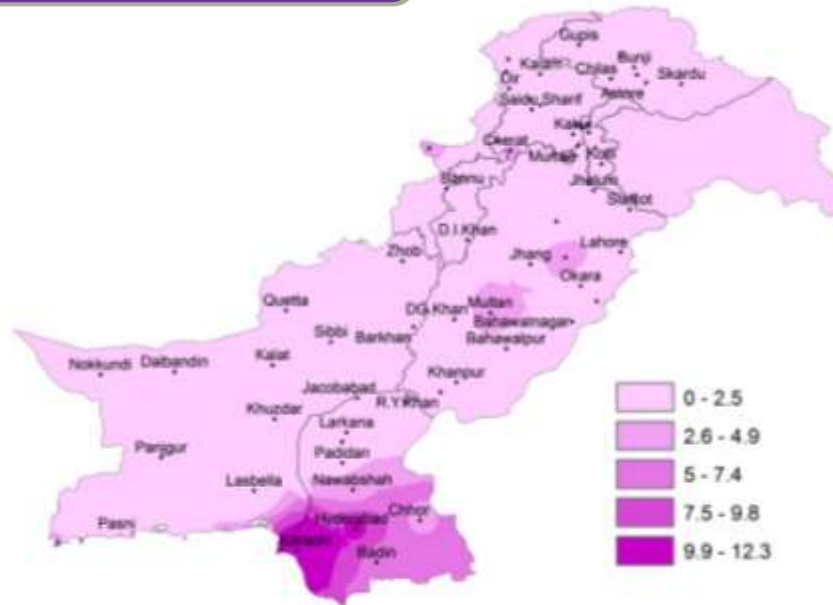
Mean Relative Humidity (%) during the Previous week (from 19<sup>th</sup> to 25<sup>th</sup> September, 2016)



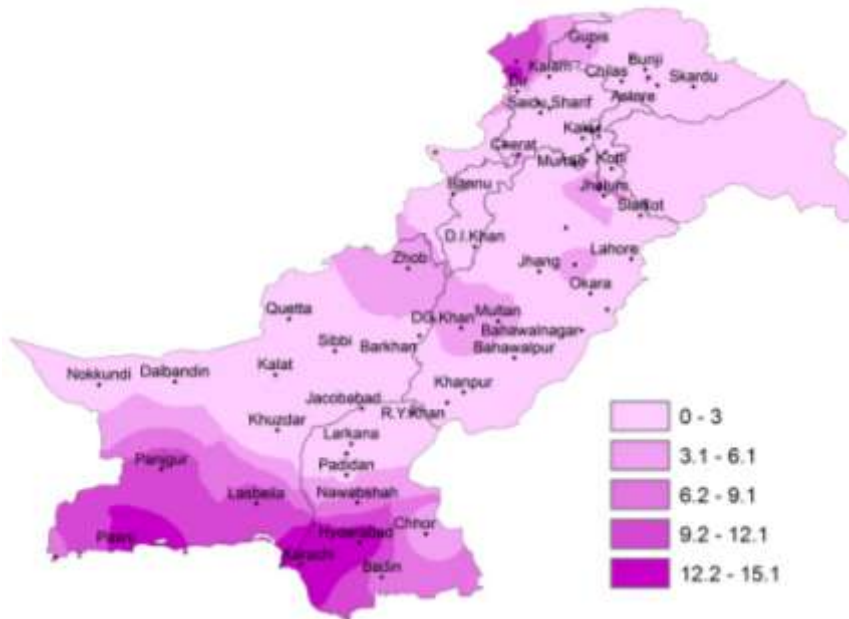
Total Growing Degree Days accumulated during the Previous week (from 19<sup>th</sup> to 25<sup>th</sup> September, 2016)



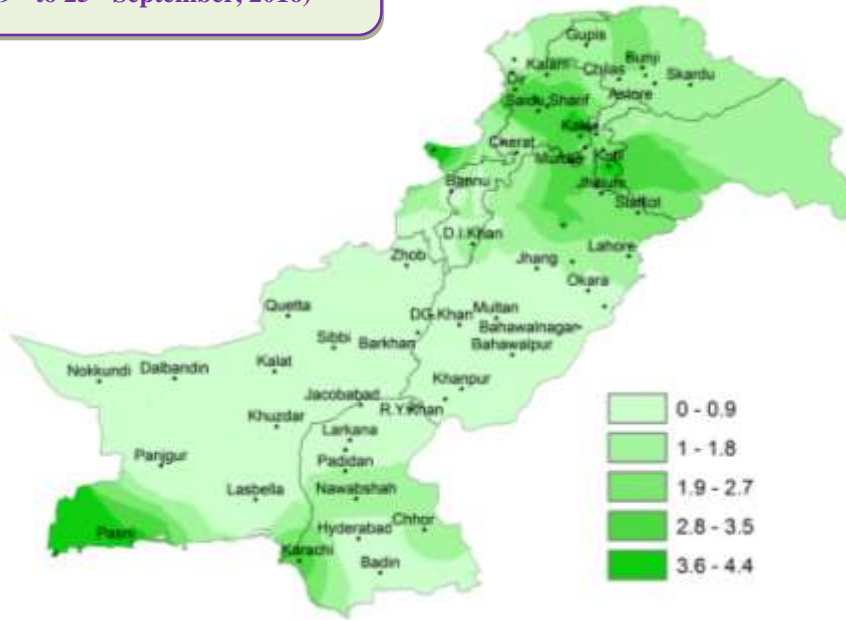
Mean Wind Speed (Knots) at 0800PST during the Previous week (from 19<sup>th</sup> to 25<sup>th</sup> September, 2016)



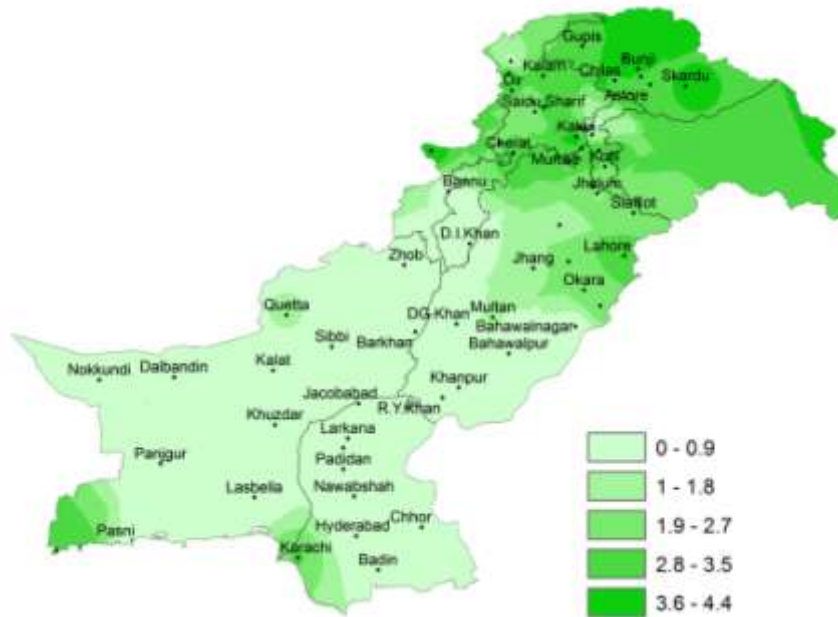
Mean Wind Speed (Knots) at 1200PST during the Previous week (from 19<sup>th</sup> to 25<sup>th</sup> September, 2016)



Mean Cloudiness (Oktas) at 0800PST during the Previous week (from 19<sup>th</sup> to 25<sup>th</sup> September, 2016)



Mean Cloudiness (Oktas) at 1200 PST during the Previous week (from 19<sup>th</sup> to 25<sup>th</sup> September, 2016)





**Weekly Weather Advisory for Farmers****(From 26<sup>th</sup> September to 2<sup>nd</sup> October, 2016)**

Weak seasonal low lies over north Balochistan and its adjoining areas. A shallow trough of westerly wave is still affecting Kashmir and adjoining areas.

**MONDAY****26-09-2016**

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

**TUESDAY****27-09-2016**

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

**WEDNESDAY****28-09-2016**

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

**THURSDAY****29-09-2016**

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

**FRIDAY****30-09-2016**

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

**SATURDAY****01-10-2016**

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

**SUNDAY****02-10-2016**

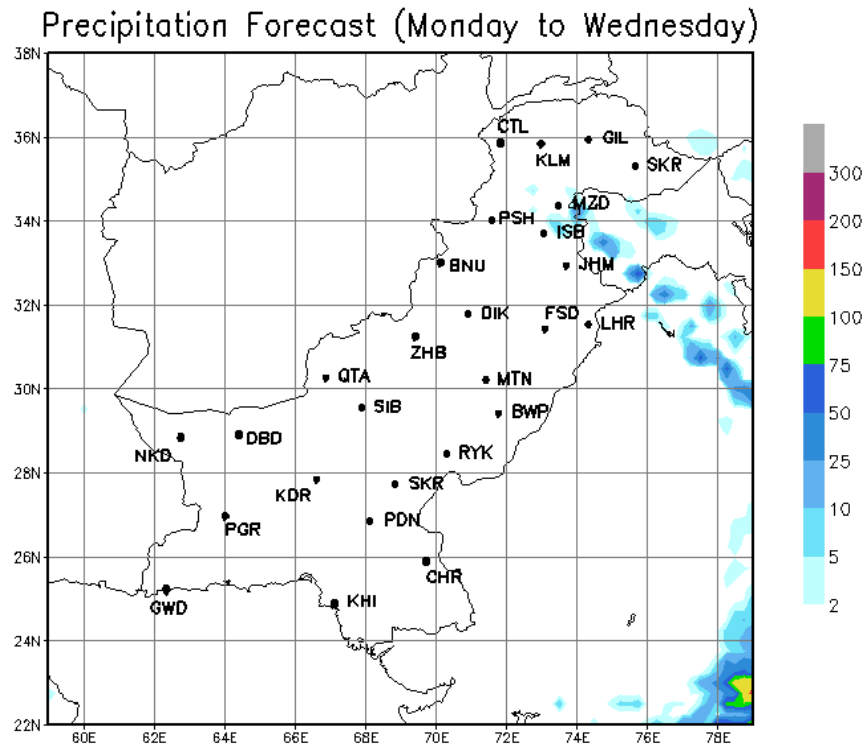
Mainly hot and dry weather is expected in most parts of the country.

**ADVISES FOR CROPS**

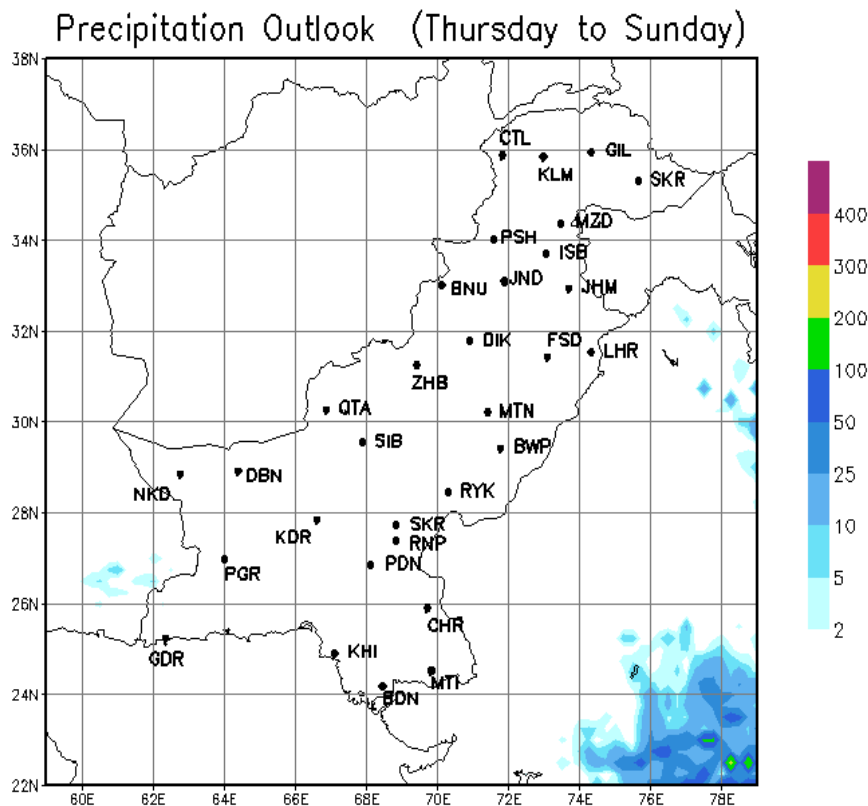
- ❖ Farmers obtaining crop water through tube wells are advised to schedule the irrigation according to the expected weather mentioned during the week.
- ❖ Farmers are advised to control further weeds growth at the present growing stages to stop any negative impact on the crops. Weeds removing practices should be started soon after expected rains in the mentioned.
- ❖ 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.

## Weather Outlook from 26<sup>th</sup> September to 2<sup>nd</sup> October 2016

The outlook from 26<sup>th</sup> to 28<sup>th</sup> September, 2016 shows that dry weather is expected in most parts of the country except in Kashmir and Upper Punjab including Islamabad where light rainfall is expected.



The outlook from 29<sup>th</sup> September to 2<sup>nd</sup> October, 2016 shows that dry weather is expected in most parts of the country.



**National Weather Data of Selected Cities**  
**(Weekly Data from 19<sup>th</sup> to 25<sup>th</sup> September, 2016)**

Stations	Maximum/Day time Temperature (°C)		Growing Degree Days	Relative Humidity (%)	Rainfall (mm)	Cloudiness (Oktas) 0800PST	Cloudiness (Oktas) 1700PST	Wind Speed (Knots) 0800PST	Wind Speed (Knots) 1700PST
	Mean	Highest							
Astore	24.2	28.0	83.8	46	1.7	1.3	3.3	0.6	1.7
Badin	33.6	34.5	169.5	74	0.0	0.6	0.4	6.3	8.3
Bahawalnagar	37.9	39.5	189.8	61	0.1	0.4	0.0	0.3	1.4
Bahawalpur	38.7	39.8	187.5	58	0.0	0.0	0.0	1.7	0.0
Balakot	31.8	34.0	138.5	68	4.0	4.3	2.7	0.0	0.3
Bannu	36.5	38.7	162.7	58	0.0	0.6	0.3	0.3	0.6
Barkhan	34.8	36.5	166.5	45	0.0	0.3	0.6	0.0	2.0
Bunji	31.0	34.4	132.2	54	4.1	2.3	4.3	0.9	1.4
Cherat	28.1	30.0	130.3	63	3.0	1.4	3.3	2.9	3.1
Chhor	37.2	38.2	176.6	70	0.0	1.1	0.0	4.6	4.3
Chilas	35.1	38.5	163.8	29	0.5	1.4	3.4	0.9	2.3
Chitral	32.2	34.5	124.5	55	0.0	0.0	0.6	0.0	11.7
D.I.Khan	35.6	39.0	171.3	69	43.0	1.0	0.4	0.3	0.9
Dalbandin	41.6	43.0	182.8	19	0.0	0.0	0.4	0.0	2.0
DG.Khan	37.4	38.0	183.3	61	0.0	0.3	0.6	0.9	5.1
Dir	29.9	33.5	111.3	70	9.0	2.9	3.0	0.0	1.9
Drosh	33.3	36.1	144.2	37	0.0	1.4	3.3	0.0	14.3
Faisalabad	36.7	38.5	180.3	64	1.0	1.1	1.9	1.6	1.1
Garidopatta	34.1	36.5	152.6	66	5.1	2.6	1.6	0.0	0.6
Gawader	33.0	34.0	168.8	75	0.0	3.7	3.1	0.0	10.9
Gilgit	30.6	35.0	112.8	60	0.7	2.0	4.4	0.0	0.0

Gupis	27.1	31.0	98.0	43	0.0	1.6	2.9	1.1	3.4
Hyderabad	38.5	40.5	183.0	65	0.0	0.0	0.0	10.6	15.1
Islamabad	33.9	36.0	162.0	66	0.0	3.3	2.6	0.3	2.0
Jacobabad	37.0	39.0	187.5	67	0.0	0.3	0.0	0.6	2.0
Jhang	37.8	39.4	184.0	63	4.2	0.4	1.4	1.7	1.4
Jhelum	34.9	37.0	174.4	75	10.4	2.6	1.6	0.0	1.7
Jiwani	31.3	31.5	163.5	73	0.0	3.6	3.3	2.9	7.4
Kakul	28.8	31.0	124.3	69	3.0	3.3	4.0	0.0	0.3
Kalam	25.1	27.0	82.8	67	0.0	2.3	3.4	0.0	2.3
Kalat	30.7	32.0	101.5	33	0.0	0.0	0.0	0.0	0.0
Karachi	33.4	34.0	172.8	70	0.0	3.0	2.7	12.3	12.9
Khanpur	39.2	40.5	186.4	62	0.0	0.3	0.0	0.6	0.3
Khuzdar	37.0	38.0	175.8	39	0.0	0.0	0.0	0.6	0.9
Kotli	33.0	35.3	158.8	68	3.9	4.1	2.6	0.9	0.6
Lahore	34.4	36.0	173.8	69	30.2	1.6	3.1	0.6	1.4
Larkana	39.2	42.0	190.5	62	0.0	0.6	0.0	1.7	1.7
Lasbella	38.1	40.0	187.1	63	0.0	0.0	0.0	0.0	10.0
Lower Dir	34.5	37.5	164.8	60	29.0	3.7	1.7	2.0	2.0
M.B Din	35.9	37.5	176.7	74	3.5	2.7	1.4	0.0	0.6
Malam Jabba	20.0	21.0	74.8	77	5.0	2.7	4.0	0.0	0.0
Mangla	34.9	37.0	166.9	67	4.7	2.6	2.6	1.4	7.1
Mir Khani	31.8	32.5	133.5	48	0.0	0.6	3.0	0.0	3.7
Moinjodaro	40.1	43.0	186.7	58	0.0	0.3	0.0	2.0	3.1
Multan	37.4	39.5	189.5	59	2.6	0.4	1.0	3.7	4.3
Murree	21.9	24.1	90.9	80	38.6	2.1	3.4	0.0	1.1
Muzaffarabad	33.2	35.2	148.7	67	12.1	3.1	2.4	0.0	1.1

Nawabshah	41.1	45.5	193.5	54	0.0	1.6	0.0	4.0	8.7
Nokkundi	41.6	43.5	198.3	12	0.0	0.0	0.0	1.7	2.3
Okara	36.6	38.0	182.7	69	0.0	0.9	2.1	0.9	1.1
Padidan	39.4	43.0	187.3	64	0.0	1.1	0.0	1.7	2.3
Panjgur	37.0	38.0	161.3	33	0.0	0.0	0.0	0.0	10.3
Parachinar	28.6	29.5	131.0	68	16.8	4.4	4.3	3.0	3.0
Pasni	31.7	32.5	162.3	75	0.0	3.7	0.3	1.4	14.0
Pattan	32.4	36.0	152.0	63	38.0	0.0	0.0	0.0	0.0
Peshawar	35.2	37.5	174.0	71	2.0	0.7	2.4	0.9	2.6
Quetta	32.5	34.0	141.1	27	0.0	0.3	0.6	2.5	2.6
R.Y.Khan	40.1	42.5	191.4	63	0.0	0.3	0.0	0.6	0.6
Rawalakot	26.7	28.0	105.8	81	2.7	1.9	3.4	0.0	0.9
Rawalpindi	34.4	37.0	168.2	67	0.0	2.2	1.8	0.9	1.4
Sahiwal	36.9	38.5	177.0	67	0.0	0.4	2.4	1.7	1.1
Saidu Sharif	32.6	35.8	146.9	62	5.0	3.3	1.6	0.6	0.3
Sialkot	33.8	35.5	169.3	73	29.6	2.1	2.3	2.4	1.4
Sibbi	40.5	43.0	205.5	46	0.0	0.9	0.4	0.3	2.0
Skardu	27.3	29.7	90.9	45	0.0	1.4	3.7	0.0	1.1
Tandojam	38.2	39.0	178.8	67	0.0	0.0	0.0	2.3	3.4
Usta.M	36.4	37.0	184.5	80	0.0	0.2	0.0	0.5	1.1
Zhob	34.5	36.0	151.8	34	0.0	0.0	0.7	2.1	5.6

\*\*\* 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)