

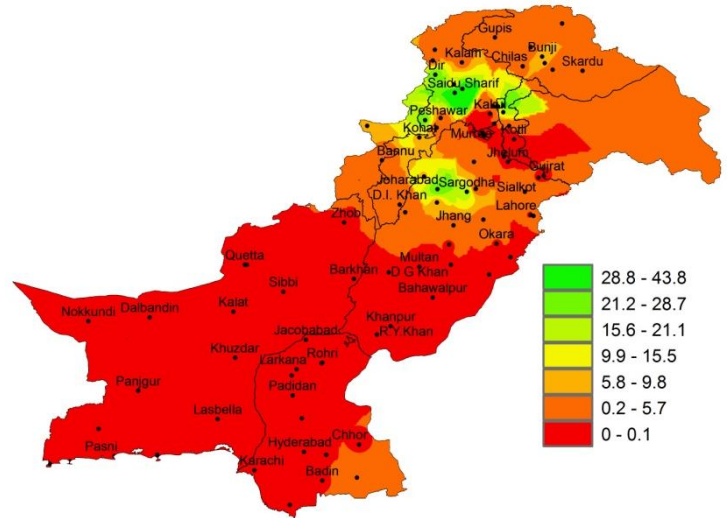
# Weekly Weather and Crop Bulletin for Pakistan

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Rainfall Distribution (mm) during the Previous  
Week (11<sup>th</sup> to 17<sup>th</sup> September, 2017)



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## Highlights of Past Weather (11<sup>th</sup> to 17<sup>th</sup> September, 2017)

Below normal day time temperatures reported from most parts of Sindh, Baluchistan, Gilgit-Baltistan and Kashmir. However, slightly above normal day time temperatures reported from the remaining parts of the country.

Province wise distribution of rainfall reported as follows:

- Light to moderate rainfall reported from many places of Punjab, Khyber Pakhtunkhwa, Gilgit-Baltistan and Kashmir during this week.
- Light rainfall reported from a single station in Baluchistan and Sindh during the week.

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

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

**Editor: Ms. Khalida Noureen (Meteorologist)**

**Past Weather of Provinces (11<sup>th</sup> to 17<sup>th</sup> September, 2017)**

**Punjab**

Light to moderate rainfall reported from Punjab during the week. Weekly maximum and minimum temperatures recorded as 35.9°C & 23.3°C respectively. For the recent week on average 172.0 growing degree days were accumulated by the end of the last week. Average relative humidity recorded as 65% and wind speed in the morning/evening recorded as 1.8/2.3 knots. During the previous week the highest amount of rainfall was recorded as 29.0 mm at Joharabad & highest maximum temperature was recorded as 41.0°C at Bakkar.

**Balochistan**

Light rainfall was reported from single place (Barkhan = 0.01 mm) from Balochistan province during the week. Weekly maximum and minimum temperatures recorded as 34.9°C & 20.9°C respectively. For the recent week on average 160.3 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 46% and wind speed in the morning/evening recorded as 1.2/6.1 knots. During the previous week the highest maximum temperature was recorded as 43.0°C at Turbat.

**Khyber Pakhtunkhwa**

Light to moderate rainfall reported from many places of Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 31.2°C & 16.7°C respectively. For the recent week on average 132.8 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 0.8/3.3 knots. During the previous week the highest amount of rainfall was recorded as 44.0mm at Saidu Sharif & highest maximum temperature was recorded as 39.5°C at D.I.Khan.

**Gilgit-Baltistan and Azad Jammu & Kashmir**

Light rainfall reported from most part of Gilgit-Baltistan & Kashmir during the week. Weekly maximum and minimum temperatures recorded as 27.6°C & 14.0°C respectively. For the recent week on average 109.2 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 59% and wind speed in the morning/evening recorded as 0.8/3.4 knots. During the previous week the highest amount of rainfall was recorded as 14.2 mm at Garhi Dopatta & highest maximum temperature was recorded as 35.6°C at Kotli.

**Sindh**

Light rainfall was reported from single place (Mithi = 1.0 mm) from Sindh province during the week. Weekly maximum and minimum temperatures recorded as 36.2°C & 25.7°C respectively. For the recent week, on average 185.1 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 2.6/4.8 knots. Highest maximum temperature was recorded as 42.0°C at Chhor.

**Past Weather for Major Agricultural Plains  
(11<sup>th</sup> to 17<sup>th</sup> September, 2017)****Rawalpindi (Potohar region)**

Dry weather reported from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 0.9/1.6 Oktas while, average relative humidity observed as 68%. Mean day time temperature recorded as 33.9°C & for the recent week 155.6 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.2/1.2 knots.

**Faisalabad (Central Punjab)**

Rainfall reported as 1.5 mm from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 1.1/1.7 Oktas while, average relative humidity observed as 55%. Mean day time temperature recorded as 37.1°C & for the recent week 178.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.6/1.2 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 76%. Mean day time temperature recorded as 36.7°C & for the recent week 174.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.1/1.6 knots.

**Usta Muhammad (Eastern Balochistan)**

Dry weather reported from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded 0.0/0.0 Oktas while, average relative humidity observed as 71%. Mean day time temperature recorded as 36.9°C & for the recent week 188.9 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.8/2.3 knots.

**Quetta (Northern Baluchistan)**

Dry weather reported from Quetta during the week; however, cloudiness in the morning/evening recorded as 0.3/1.4 Oktas while, average relative humidity observed as 29%. Mean day time temperature recorded as 30.7°C & for the recent

week 119.4 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.7/3.6 knots.

**Past Weather for Sub-Regional Agricultural Plains (11<sup>th</sup> to 17<sup>th</sup> September, 2017)****Multan**

Dry weather reported from Multan during the week; however, cloudiness in the morning/evening recorded as 1.2/1.0 Oktas while, average relative humidity observed as 56%. Mean day time temperature recorded as 36.9°C & for the recent week 186.7 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 5.6/3.5 knots.

**Lahore**

Rainfall reported as 0.2 mm from Lahore during the week; however, cloudiness in the morning/evening recorded as 2.6/0.8 Oktas while, average relative humidity observed as 58%. Mean day time temperature recorded as 35.7°C & for the recent week 174.7 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.0/3.0 knots.

**Zhob**

Dry weather reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 0.4/2.5 Oktas while, average relative humidity observed as 56%. Mean day time temperature recorded as 32.6°C & for the recent week 143.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.0/9.5 knots.

**Murree**

Dry weather reported from Murree during the week; however, cloudiness in the morning/evening recorded as 1.0/3.3 Oktas while, average relative humidity observed as 81%. Mean day time temperature recorded as 23.4°C & for the recent week 94.0 growing degree days accumulated by the end of last week. Calm wind speed recorded in the morning/evening as 0.0/0.0 knots.

**D.I. Khan**

Dry weather reported from D.I.Khan during the week; however, cloudiness in the morning/evening recorded as 1.2/1.8 Oktas while, average relative humidity observed as 63%. Mean day time temperature recorded as 37.2°C & for the recent week 179.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.4/1.0 knots.

**Peshawar**

Rainfall reported as 26.0 mm from Peshawar during the week; however, cloudiness in the morning/evening recorded as 2.4/6.5 Oktas while, average relative humidity observed as 70%. Mean day time temperature recorded as 34.9°C & for the recent week 162.1 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.2/2.0 knots.

**Kalam**

Rainfall reported as 2.7 mm from Kalam during the week; however, cloudiness in the morning/evening recorded as 2.4/7.5 Oktas while, average relative humidity observed as 65%. Mean day time temperature recorded as 25.7°C & for the recent week 85.6 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/1.0 knots.

**Gilgit**

Rainfall reported as 0.8 mm from Gilgit during the week; However, cloudiness in the morning/evening recorded as 5.4/6.8 Oktas while, average relative humidity observed as 61%. Mean day time temperature recorded as 27.4°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 0.0/10.5 knots.

**Skardu**

Rainfall reported as 1.0 mm from Skardu during the week; However, cloudiness in the morning/evening recorded as 4.4/6.5 Oktas while, average relative humidity observed as 55%. Mean day time temperature recorded as 22.8°C & for the recent week 81.4 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/3.5 knots.

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

**Cotton:** Very Good condition, *Boll opening* stage

**Lower Sindh (Tandojam)**

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

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

**Northern Baluchistan (Quetta)**

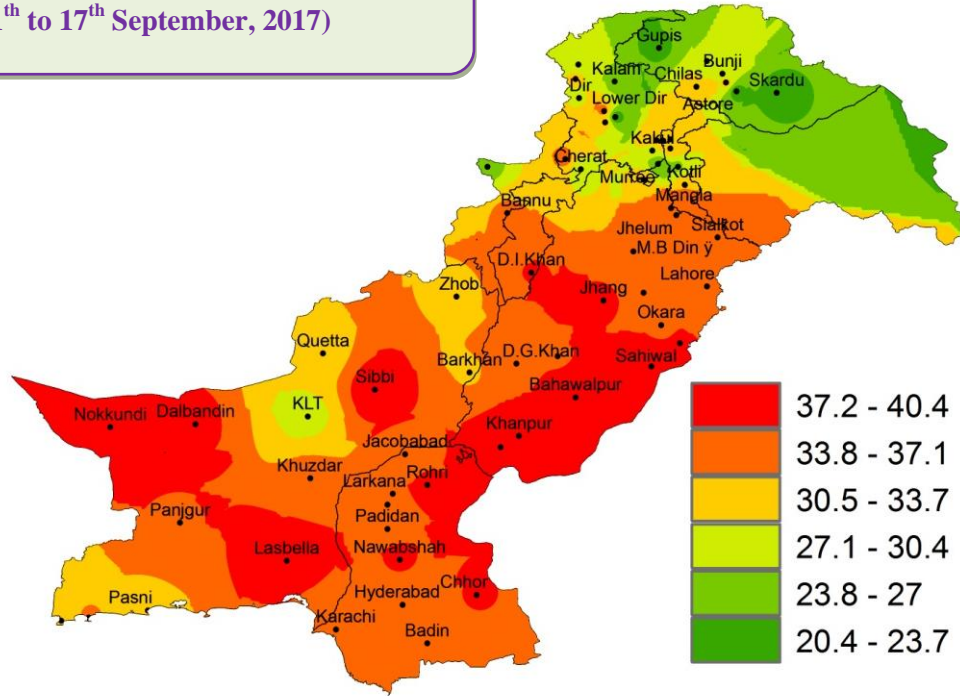
There is presently no crop grown in the fields of RAMC Quetta.

**Eastern Baluchistan (Usta Muhammad)**

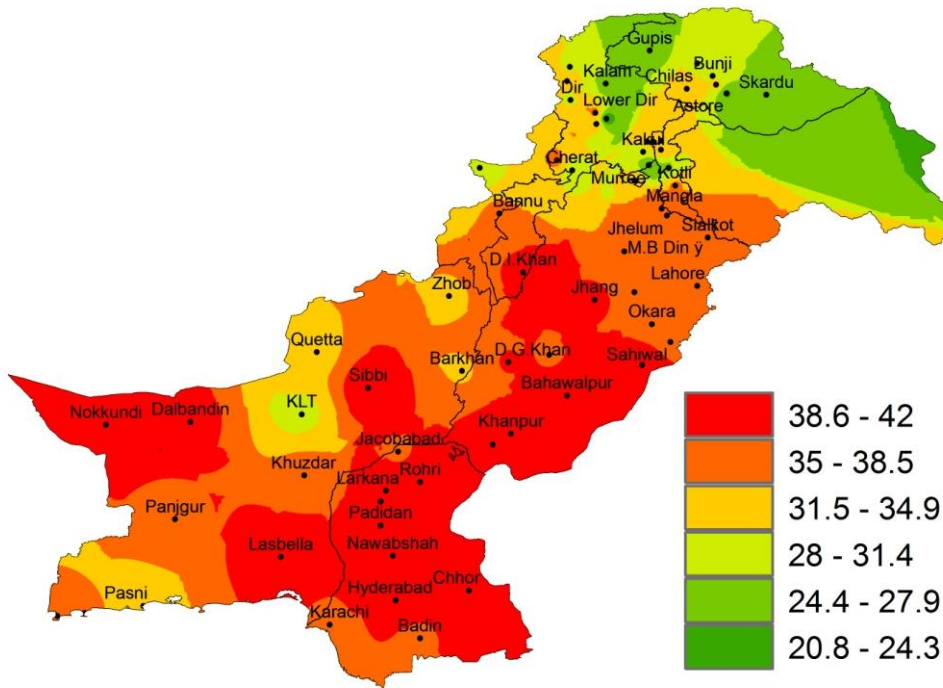
There is presently one crop (irrigated conditions) grown in the fields of RAMC Usta Muhammad.

**Rice:** Good condition, *Tillering* stage.

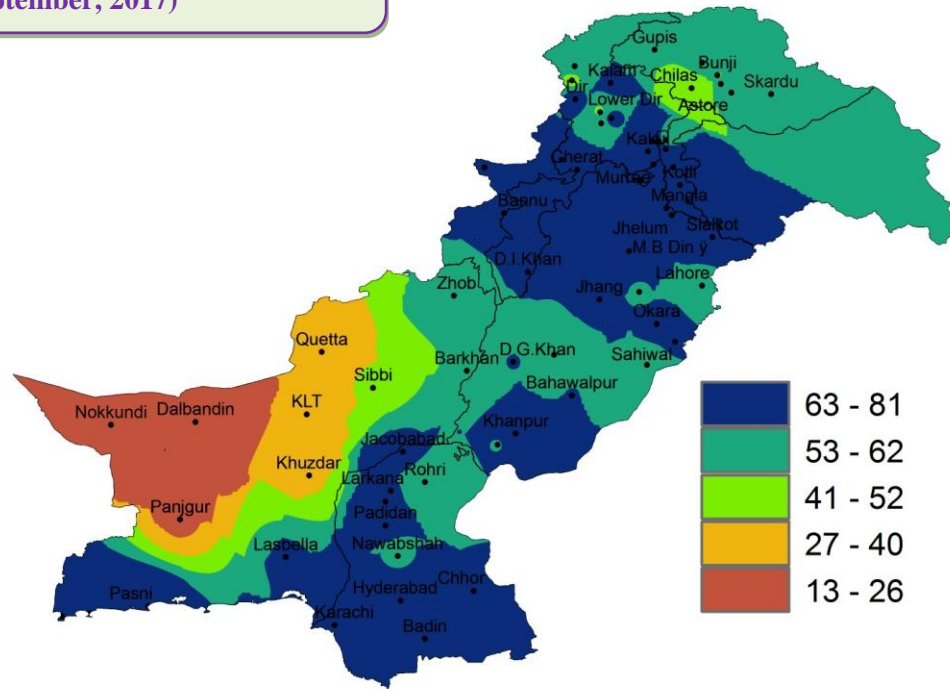
Mean Maximum Temperature (°C) during the Previous week (11<sup>th</sup> to 17<sup>th</sup> September, 2017)



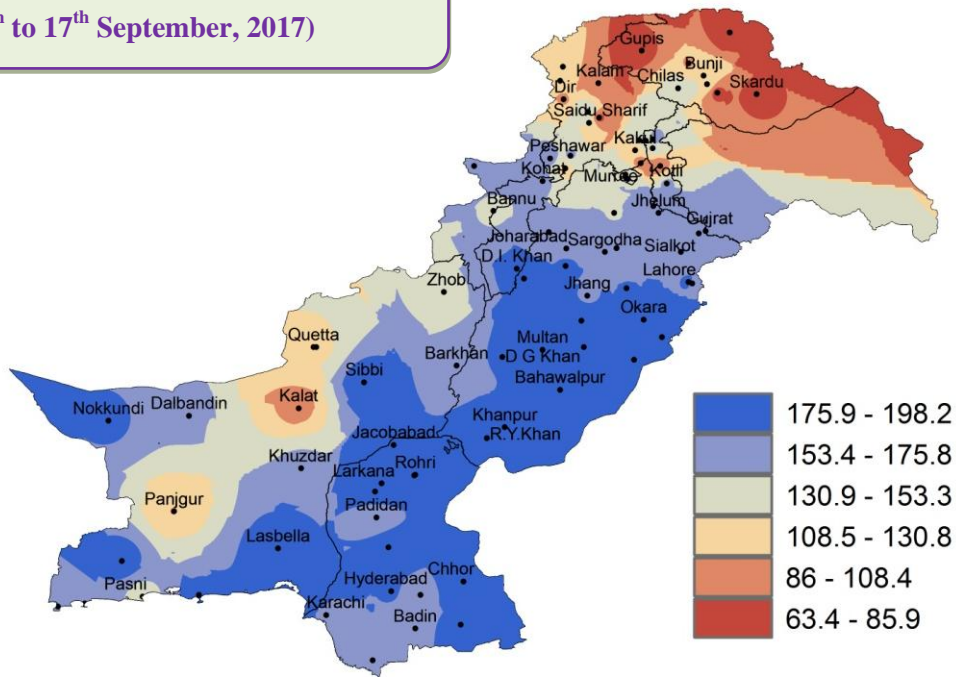
Highest maximum Temperature (°C) during the Previous week (11<sup>th</sup> to 17<sup>th</sup> September, 2017)



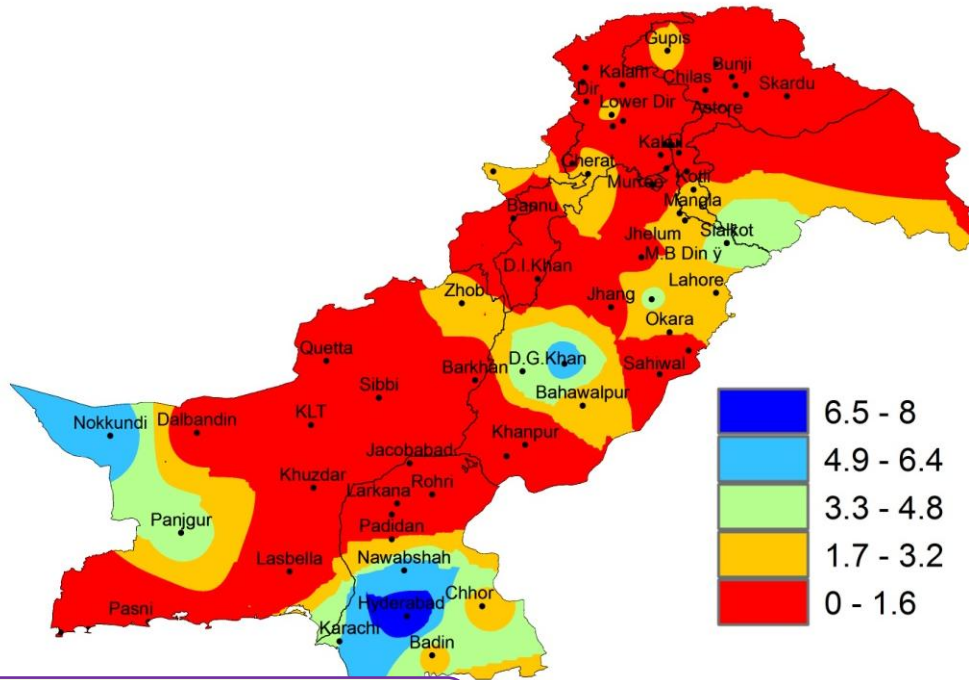
Mean Relative Humidity (%) during the previous week (11<sup>th</sup> to 17<sup>th</sup> September, 2017)



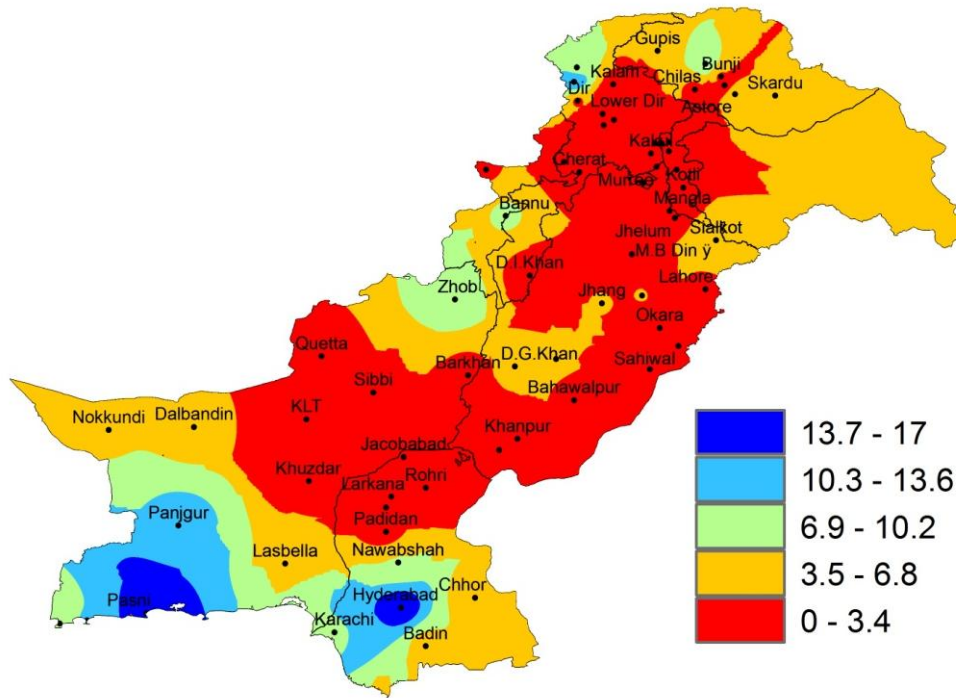
Total Growing Degree Days accumulated during the previous week (11<sup>th</sup> to 17<sup>th</sup> September, 2017)



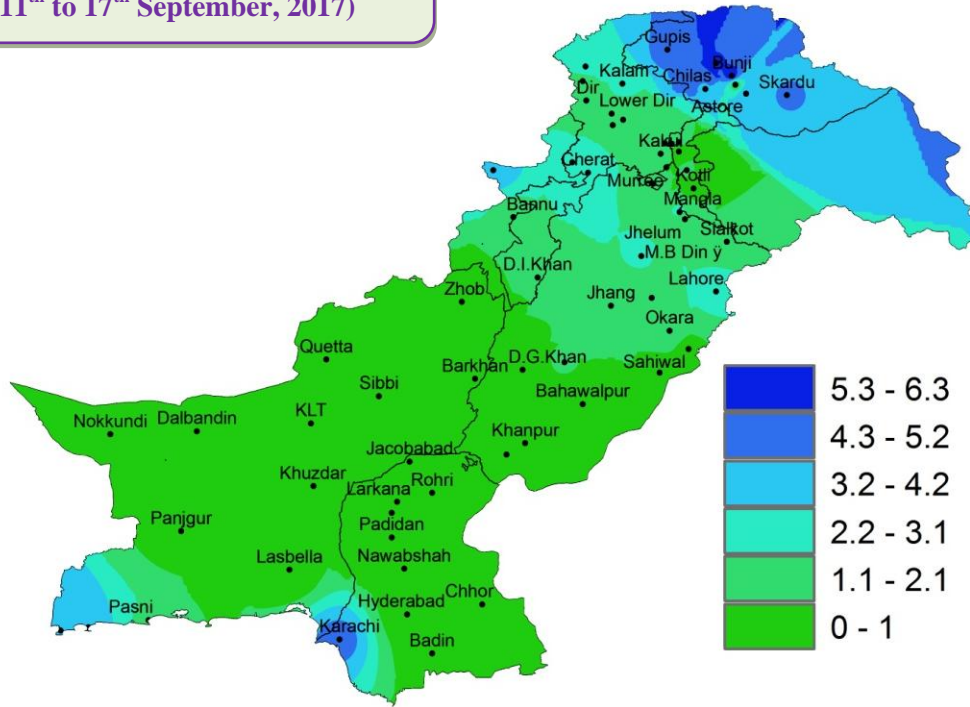
Mean Wind Speed (Knots) at 0800PST during the previous week (11<sup>th</sup> to 17<sup>th</sup> September, 2017)



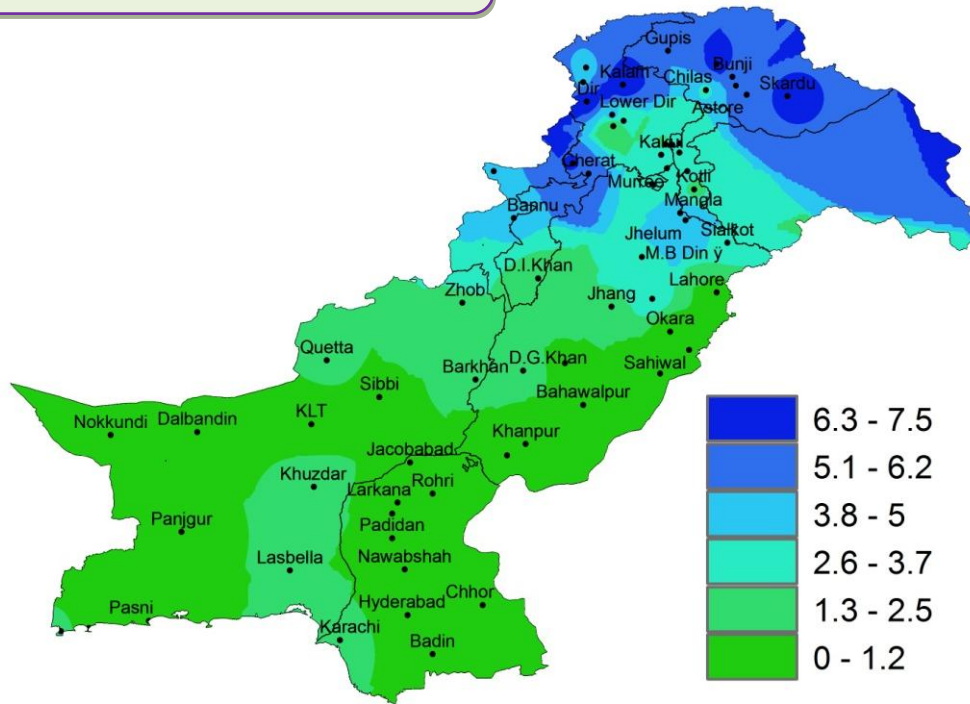
Mean Wind Speed (Knots) at 1700PST during the previous week (11<sup>th</sup> to 17<sup>th</sup> September, 2017)



Mean Cloudiness (Oktas) at 0800PST during the previous week (11<sup>th</sup> to 17<sup>th</sup> September, 2017)



Mean Cloudiness (Oktas) at 1700PST during the previous week (11<sup>th</sup> to 17<sup>th</sup> September, 2017)





**Weekly Weather Advisory for Farmers**  
**(19<sup>th</sup> to 24<sup>th</sup> September, 2017)**

Weak seasonal low lies over north Balochistan. Continental air is prevailing over most parts of the country.

**TUESDAY**  
**19-09-2017**

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

**WEDNESDAY**  
**20-09-2017**

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

**THURSDAY**  
**21-09-2017**

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

**FRIDAY**  
**22-09-2017**

Hot and humid weather is expected in most parts of the country. However, rain-thunderstorm is expected at isolated places in Malakand, Hazara, Rawalpindi, Gujranwala, Lahore divisions, Islamabad, Kashmir and Gilgit-Baltistan.

**SATURDAY**  
**23-09-2017**

Mainly hot and humid weather is expected in most part of the country. However, rain-thunderstorm (with gusty winds) is expected at scattered places

in Malakand, Hazara, Rawalpindi, Gujranwala, Lahore, Sargodha, Faisalabad divisions, Islamabad, FATA, Kashmir and Gilgit-Baltistan.

**SUNDAY**  
**24-09-2017**

Mainly hot and humid weather is expected in most part of the country. However, rain-thunderstorm (with gusty winds) is expected at scattered places in Malakand, Hazara, Rawalpindi, Gujranwala, Lahore, Sargodha, Faisalabad divisions, Islamabad, FATA, Kashmir and Gilgit-Baltistan.

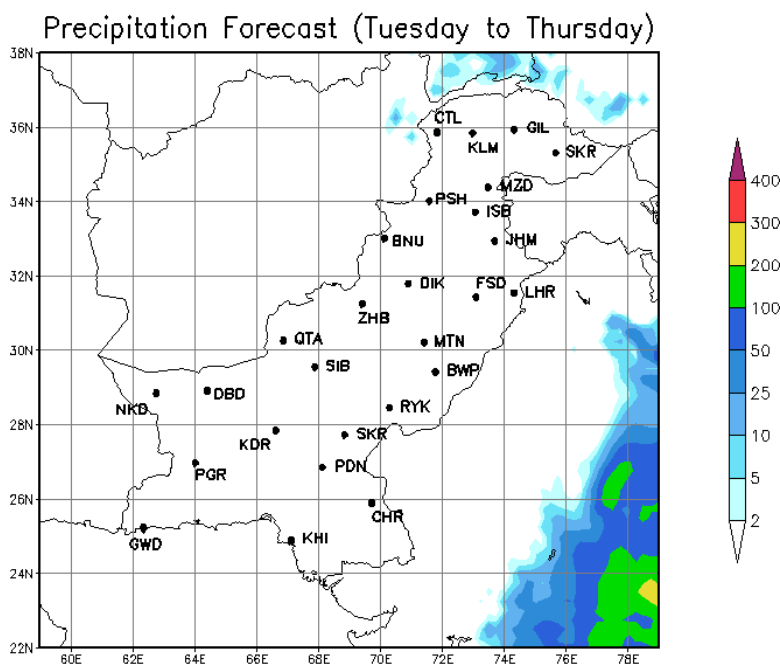
**ADVISES FOR FARMERS**

During the last week, light to moderate rainfall occurred in most of the agricultural plains of the country. In the coming days, dry weather is expected in all parts of the country. Keeping in view the expected weather conditions following advises are suggested for farming community.

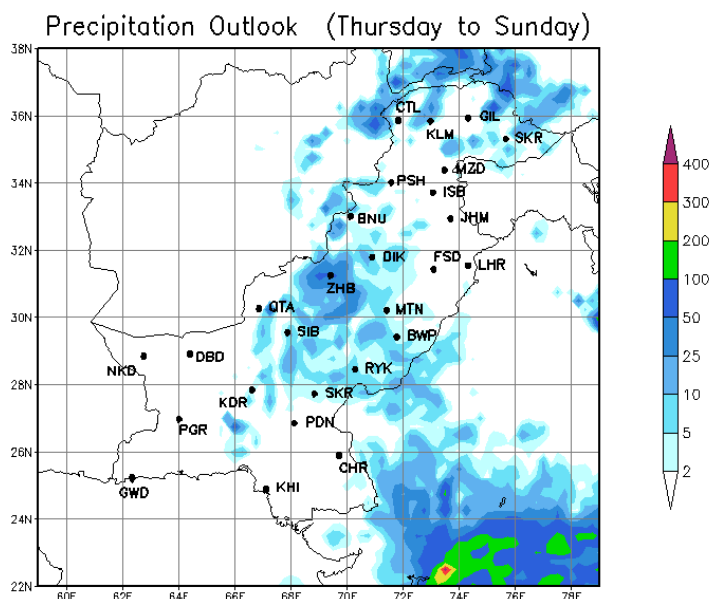
- Farmers of irrigated areas may irrigate the standing crops as per requirement in accordance with the expected weather and crop conditions.
- Pest/viral attacks and more weeds growth are expected in standing crops during this season. Farmers are therefore advised to do regular pest scouting and take in time precautionary measures accordingly.

## Weather Outlook from 20<sup>th</sup> to 24<sup>th</sup> September, 2017

The outlook from 19<sup>th</sup> September to 21<sup>st</sup> September, 2017 shows that dry weather is expected in most parts of the country.



The outlook from 22<sup>nd</sup> September to 24<sup>th</sup> September, 2017 shows that light to moderate rainfall is expected at scattered places in Gilgit-Baltistan, lower KP, lower Punjab and northern Baluchistan.



**National Weather Data of Selected Cities (11<sup>th</sup> September to 17<sup>th</sup> September, 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	21.1	23.5	72.2	54	0.80	4.2	6.3	1.2	4.0
Badin	34.1	38.0	175.3	71	0.00	0.0	0.5	2.8	5.0
Bahawalnagar	39.0	40.0	194.5	58	0.00	0.6	0.0	0.0	0.0
Bahawalpur	38.4	39.5	191.1	62	0.00	0.0	0.5	2.0	3.0
Balakot	31.9	32.5	134.1	71	0.01	1.2	1.5	0.0	0.0
Bannu	34.6	35.7	149.8	67	3.00	1.4	4.3	0.0	7.5
Barkhan	33.4	34.5	154.0	53	0.01	1.0	1.8	0.0	2.0
Bunji	28.7	30.6	124.7	52	8.61	6.4	6.3	1.6	3.0
Cherat	27.9	29.0	119.0	64	0.00	2.8	5.3	3.2	2.0
Chhor	37.3	42.0	185.5	65	0.00	1.0	0.3	2.8	4.0
Chilas	32.5	34.5	148.4	41	5.01	4.0	3.5	1.2	2.5
Chitral	29.2	31.1	113.6	59	2.40	2.6	4.8	0.0	8.5
D.G.Khan	36.6	38.7	180.0	62	0.01	0.6	1.8	3.6	4.5
D.I.Khan	37.2	39.5	179.0	63	0.02	1.2	1.8	0.4	1.0
Dalbandin	38.0	40.0	158.3	13	0.00	0.0	0.0	0.4	5.0
Dir	29.6	31.0	104.3	70	27.00	1.2	7.5	0.0	2.8
Drosh	31.0	32.5	124.6	47	2.60	1.8	4.8	0.0	13.8
Faisalabad	37.1	39.0	178.0	55	1.50	1.1	1.7	0.6	1.2
Garidopatta	33.2	34.2	145.9	68	14.20	0.6	3.3	0.0	2.5
Gawader	33.9	35.5	168.8	76	0.00	3.8	0.8	0.0	10.5
Gilgit	27.4	30.0	105.5	61	0.82	5.4	6.8	0.0	10.5
Gupis	22.6	24.5	73.8	53	3.02	4.6	5.0	2.0	4.0

Hyderabad	35.6	39.5	176.5	71	0.00	0.0	0.0	8.0	16.5
Islamabad	33.2	34.2	147.3	69	0.00	1.4	2.5	0.0	0.5
Jacobabad	35.1	38.0	182.3	67	0.00	0.0	0.8	0.8	0.5
Jhang	37.5	39.0	173.8	65	1.40	2.0	2.0	0.8	3.5
Jhelum	36.3	37.5	170.5	68	0.00	1.2	4.5	2.4	3.0
Jiwani	32.8	35.0	170.5	73	0.00	3.2	1.5	0.8	7.5
Kakul	29.3	30.0	120.5	73	0.01	1.6	4.0	0.0	2.0
Kalam	25.7	26.5	85.6	65	2.70	2.4	7.5	0.0	1.0
Kalat	28.6	30.0	99.5	27	0.00	0.0	0.0	0.0	0.0
Karachi	33.8	37.8	175.6	72	0.00	4.8	2.3	4.8	10.0
Khanpur	38.1	39.5	186.8	69	0.00	0.0	0.0	0.0	1.0
Khuzdar	35.3	36.5	163.0	36	0.00	0.0	2.5	1.2	2.0
Kotli	33.9	35.6	159.3	63	0.00	0.4	2.0	2.8	2.5
Lahore	35.7	36.0	174.7	58	0.20	2.6	0.8	2.0	3.0
Larkana	37.1	40.0	186.8	63	0.00	0.4	0.0	1.6	1.0
Lasbella	39.1	41.0	191.8	64	0.00	0.0	1.5	0.0	6.5
Lower Dir	35.7	36.5	159.8	49	7.00	1.8	4.8	3.2	3.0
M.B Din	35.8	37.0	162.3	75	0.01	2.2	3.5	1.2	1.0
Malam Jabba	20.1	20.5	73.8	67	35.00	1.4	2.8	0.0	0.0
Mangla	35.0	36.5	164.4	64	0.00	2.4	4.8	1.6	3.0
Mir Khani	32.2	33.0	135.7	53	6.60	0.8	4.8	0.8	3.0
Moinjodaro	36.2	38.5	184.2	65	0.00	0.0	0.8	0.4	3.5
Multan(PBO)	36.9	38.3	186.7	56	0.00	1.2	1.0	5.6	3.5
Murree	23.4	23.8	94.0	81	0.00	1.0	3.3	0.0	0.0
Muzaffarabad	32.4	33.2	137.4	66	1.00	1.2	4.0	0.0	1.3
Nawabshah	37.3	41.5	186.3	61	0.00	0.0	0.8	6.0	7.0

Nokkundi	37.6	39.5	181.5	13	0.00	0.0	0.0	6.0	6.5
Okara	36.5	37.5	177.9	65	0.00	2.0	0.0	1.6	1.0
Padidan	37.0	40.5	163.8	63	0.00	1.0	0.7	1.6	2.0
Panjgur	36.9	37.5	108.0	22	0.00	0.0	0.0	4.0	12.0
Parachinar	25.4	28.5	168.3	67	8.00	4.0	4.8	3.0	3.0
Pasni	32.7	33.0	140.8	81	0.00	1.8	0.5	0.0	17.0
Pattan	33.4	35.0	163.0	54	38.00	1.2	3.3	0.0	2.0
Peshawar	34.9	36.0	162.1	70	26.00	2.4	6.5	1.2	2.0
Quetta	30.7	33.0	119.4	29	0.00	0.3	1.4	1.7	3.6
Rahim Yar Khan	39.4	40.8	191.1	62	0.02	0.0	0.0	0.8	0.5
Rawalakot	26.3	27.2	89.3	81	0.00	1.2	3.8	0.0	1.5
Rawalpindi	33.9	35.0	155.6	68	0.00	0.9	1.6	0.2	1.2
Rohri	37.6	40.5	192.0	54	0.00	0.0	0.0	0.4	2.0
Sahiwal	37.3	38.0	182.0	63	0.00	0.6	0.5	1.6	2.0
Saidu Sharif	32.3	33.5	133.5	58	44.00	1.6	1.0	0.0	0.0
Sialkot	34.4	35.4	163.2	68	0.01	1.6	3.3	4.2	5.0
Sibbi	40.4	42.0	198.3	43	0.00	0.0	1.0	0.8	3.0
Skardu	22.8	24.3	81.4	55	1.02	4.4	6.5	0.0	3.5
Tandojam	36.7	39.0	174.8	76	0.00	0.0	0.0	1.1	1.6
Usta.M	36.9	37.7	188.9	71	0.00	0.0	0.3	0.8	2.3
Zhob	32.6	34.5	143.0	56	0.00	0.4	2.5	2.0	9.5

\*\*\* 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 2014-2012)