

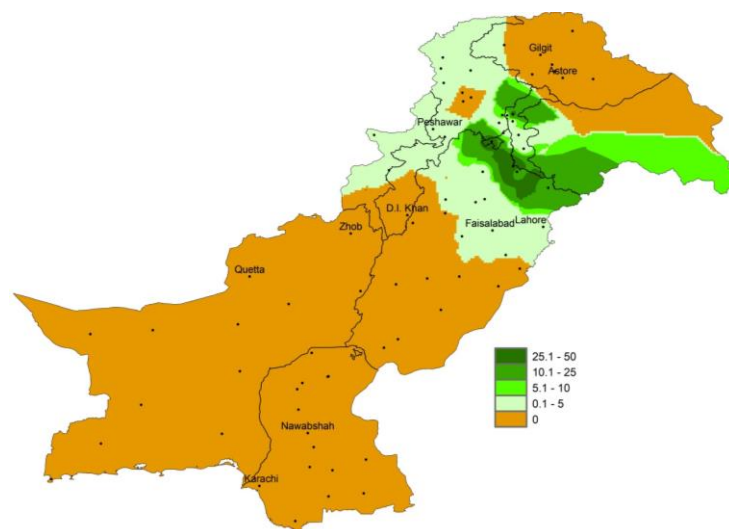
# Weekly Weather and Crop Bulletin for Pakistan

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**Rainfall Distribution (mm) during the Previous  
Week (9<sup>th</sup> September -15<sup>th</sup> September, 2019)**



## Contents

Highlights of past weather	1-2
Past weather for Agri Plains	3-4
Crop progress	4
Agrometeorological parameters	
• Temperature	5
• R.H and GDD	6
• Wind speed	7
• Cloudiness	8
Advisory for Farmers	9
Weather Outlook	10
National data for selected stations	11
AgMIP project findings	12

## Highlights of Past Weather (9<sup>th</sup> September - 15<sup>th</sup> September, 2019)

Below normal day time temperatures were observed in Sindh and Baluchistan, while mix trend was observed in Khyber Pakhtunkhwa, Punjab and Gilgit-Baltistan during the last week.

Province wise distribution of rainfall reported as follows during the last week:

1. Light rainfall observed in Punjab, Khyber Pakhtunkhwa and Gilgit-Baltistan.
2. Dry weather observed over Baluchistan and Sindh.

**Patron-in-Chief: Muhammad Riaz ( Director General)**

**Editor-in-Chief: Dr Muhammad Afzaal (Director)**

**Editor: Saeeda Saleh (Assistant Meteorologist)**

## **Past Weather of Provinces (9<sup>th</sup> September -15<sup>th</sup> September, 2019)**

### **Punjab**

Light rainfall observed in Punjab during the week. Weekly maximum and minimum temperatures recorded as 37.9°C & 27.0°C respectively. For the recent week on average 192.2 growing degree days were accumulated. Average relative humidity recorded as 66% and wind speed in the morning/evening recorded as 1.9/3.0 Knots. During the previous week the highest precipitation was recorded as 50.11 mm at Mangla while maximum temperature was recorded as 42.5°C at Khanpur.

### **Baluchistan**

Dry weather was observed in Baluchistan during the week. Weekly maximum and minimum temperatures recorded as 37.4°C & 23.7°C respectively. For the recent week on average 178.3 growing degree days were accumulated. Average relative humidity recorded as 44% and wind speed in the morning/evening recorded as 1.0/4.9 Knots. During the previous week the maximum temperature was recorded as 45.0°C at Sibbi.

### **Khyber Pakhtunkhwa**

Light rainfall observed in Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 33.9°C & 19.4°C respectively. For the recent week on average 149.2 growing degree days were accumulated. Average relative humidity recorded as 66% and wind speed in the morning/evening recorded as 1.1/1.6 Knots. During the previous week the highest precipitation was recorded as 33.0 mm at Pattan while the maximum temperature was recorded as 41.5°C at D.I. Khan.

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

Light rainfall observed in Gilgit-Baltistan & Kashmir during the week. Weekly maximum and minimum temperatures recorded as 33.4°C &

17.8°C respectively. For the recent week on average 136.1 growing degree days were accumulated. Average relative humidity recorded as 56% and wind speed in the morning/evening recorded as 0.5/1.8 Knots. During the previous week the highest precipitation recorded as 2.6 mm at Rawalakot while maximum temperature was recorded as 40.5°C at Chilas.

### **Sindh**

Dry weather was observed in Sindh during the week. Weekly maximum and minimum temperatures recorded as 38.7°C & 27.3°C respectively. For the recent week, on average 199.9 growing degree days were accumulated. Average relative humidity recorded as 60% and wind speed in the morning/evening recorded as 2.4/3.3 Knots. During the previous week the maximum temperature was recorded as 43.5°C at Dadu.

### **Past Weather for Major Agricultural Plains (9<sup>th</sup> September - 15<sup>th</sup> September, 2019)**

#### **Rawalpindi (Potohar region)**

45.60 mm rainfall reported from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 1.1/1.9 Oktas while, average relative humidity observed as 65%. Mean day time temperature recorded 35.7°C & for the recent week 178.9 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.3/0.0 Knots.

#### **Faisalabad (Central Punjab)**

14.00 mm rainfall reported from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 0.4/2.3 Oktas while, average relative humidity observed as 64%. Mean day time temperature recorded as 39.5°C & for the recent week 204.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.6/1.5 Knots.

#### **Tandojam (Lower Sindh)**

Dry weather reported from Tandojam during the week; however, cloudiness in the morning/evening recorded as 0.4/1.2 Oktas while, average relative humidity observed as 62%. Mean day time temperature recorded as 37.8°C & for the recent week 191.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.3/2.5 Knots.

#### **Usta Muhammad (Eastern Baluchistan)**

Dry weather reported from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded as 0.4/0.2 Oktas while, average relative humidity observed as 67%. Mean day time temperature recorded as 39.0°C & for the recent week 178.9 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.5/1.7 Knots.

#### **Quetta (Northern Baluchistan)**

Dry weather reported from Quetta during the week; however, cloudiness in the morning/evening recorded as 0.0/0.6 Oktas while, average relative humidity observed as 32%. Mean day time temperature recorded as 33.0°C & for the recent week 154.3 growing degree days accumulated.

Wind speed recorded in the morning/evening as 1.2/3.1 Knots.

### **Past Weather for Sub-Regional Agricultural Plains (9<sup>th</sup> September - 15<sup>th</sup> September, 2019)**

#### **Multan**

Dry weather reported from Multan during the week; however, cloudiness in the morning/evening recorded as 0.3/0.4 Oktas while, average relative humidity observed as 58%. Mean day time temperature recorded as 39.9°C & for the recent week 208.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 4.3/6.3 Knots.

#### **Lahore**

0.02 mm rainfall was reported from Lahore during the week; however, cloudiness in the morning/evening recorded as 0.0/3.1 Oktas while, average relative humidity observed as 68%. Mean day time temperature recorded as 37.5°C & for the recent week 192.1 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.1/1.4 Knots.

#### **Zhob**

Dry weather reported from Zhob during the week; however, clear sky recorded in the morning/evening while, average relative humidity observed as 38%. Mean day time temperature recorded as 38.1°C & for the recent week 181.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.9/3.7 Knots.

#### **Murree**

3.70 mm rainfall was reported from Murree during the week; however, cloudiness in the morning/evening recorded as 0.9/3.7 Oktas while, average relative humidity observed as 73%. Mean day time temperature recorded as 25.1°C & for the recent week 110.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.3/1.1 Knots.

#### **D.I. Khan**

Dry weather reported from D.I. Khan during the week; however, clear sky recorded in the morning/evening while, average relative humidity observed as 66%. Mean day time temperature recorded as 40.6°C & for the recent week 202.5

growing degree days accumulated. Wind speed recorded in the morning/evening as 0.3/1.4 Knots.

### **Peshawar**

Dry weather reported from Peshawar during the week; however, cloudiness in the morning/evening recorded as 0.0/1.7 Oktas while, average relative humidity observed as 66%. Mean day time temperature recorded as 38.1°C & for the recent week 172.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.9/0.6 Knots.

### **Kalam**

0.50 mm rainfall reported from Kalam during the week; however, cloudiness in the morning/evening recorded as 0.6/2.7 Oktas while, average relative humidity observed as 59%. Mean day time temperature recorded as 26.0°C & for the recent 90.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/1.4 Knots.

### **Gilgit**

Dry weather reported from Gilgit during the week. However, cloudiness in the morning/evening recorded as 2.7/3.0 Oktas while, average relative humidity observed as 51%. Mean day time temperature recorded as 35.1°C & for the recent week 141.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/1.4 Knots.

### **Skardu**

Dry weather reported from Skardu during the week; however, cloudiness in the morning/evening recorded as 1.3/2.6 Oktas while, average relative humidity observed as 39%. Mean day time temperature recorded as 30.6°C & for the recent week 116.2 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/0.3 Knots.

## **Crop Situation for Major Agricultural Plains** **(Based on data from Regional Agro met Centers)**

### **Potohar Region (Rawalpindi)**

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

### **Central Punjab (Faisalabad)**

Presently cotton crop is sown in the fields of RAMC Faisalabad.

**Cotton:** *V. Good, Boll opening stage.*

### **Lower Sindh (Tandojam)**

Presently cotton crop is sown in the fields of RAMC Tandojam.

**Cotton:** *Good, Boll opening stage.*

### **Northern Baluchistan (Quetta)**

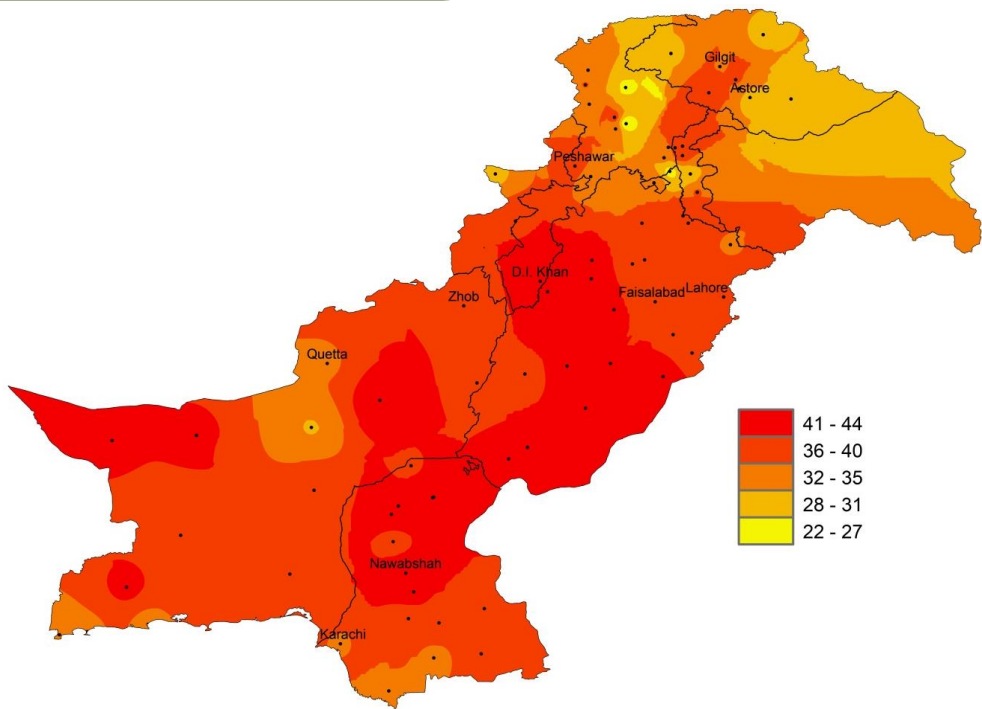
There is presently no crop grown in the fields of RAMC Quetta.

### **Eastern Baluchistan (Usta Muhammad)**

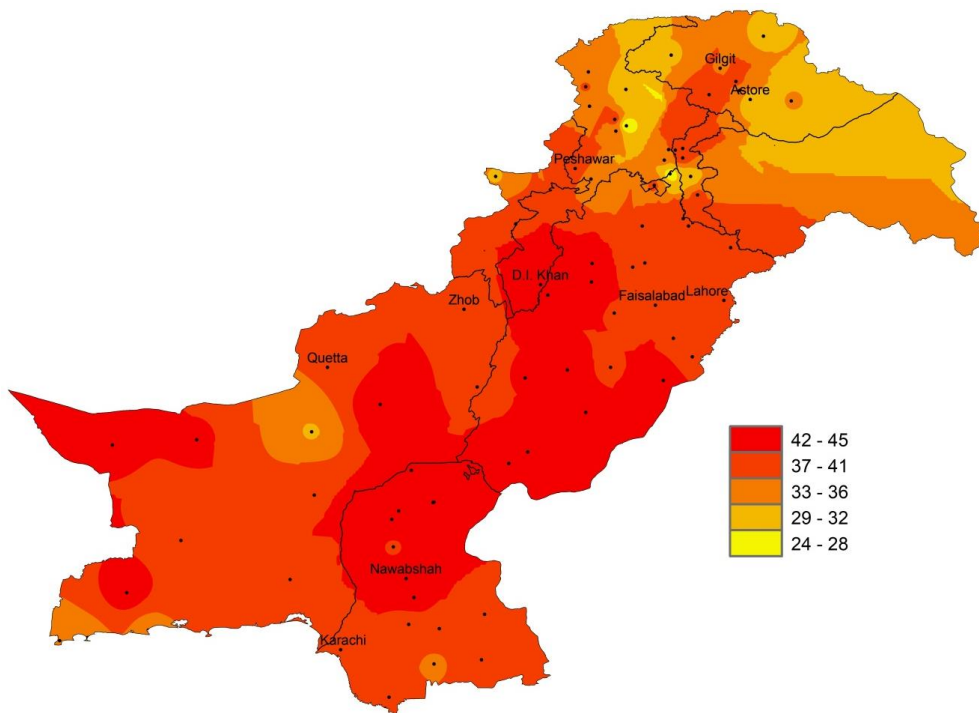
Presently rice crop is sown in the fields of RAMC Usta Muhammad.

**Rice:** *Good, Tillering Stage.*

Mean Maximum temperature (°C) during the Previous week (9<sup>th</sup> September -15<sup>th</sup> September, 2019)

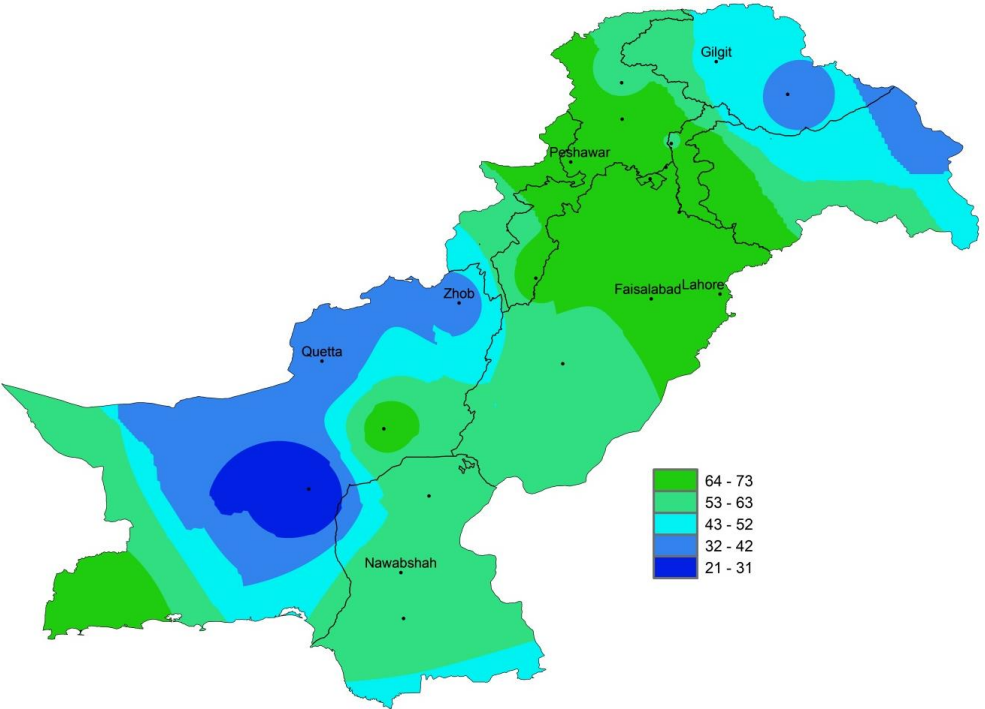


Highest Maximum Temperature (°C) during the Previous week (9<sup>th</sup> September -15<sup>th</sup> September, 2019)

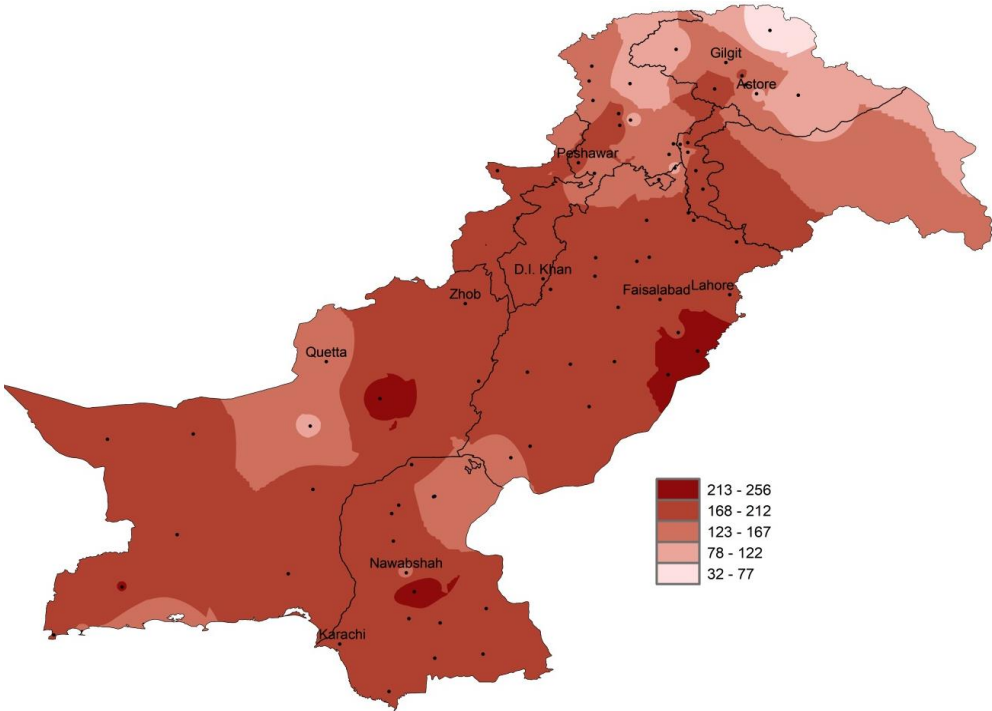




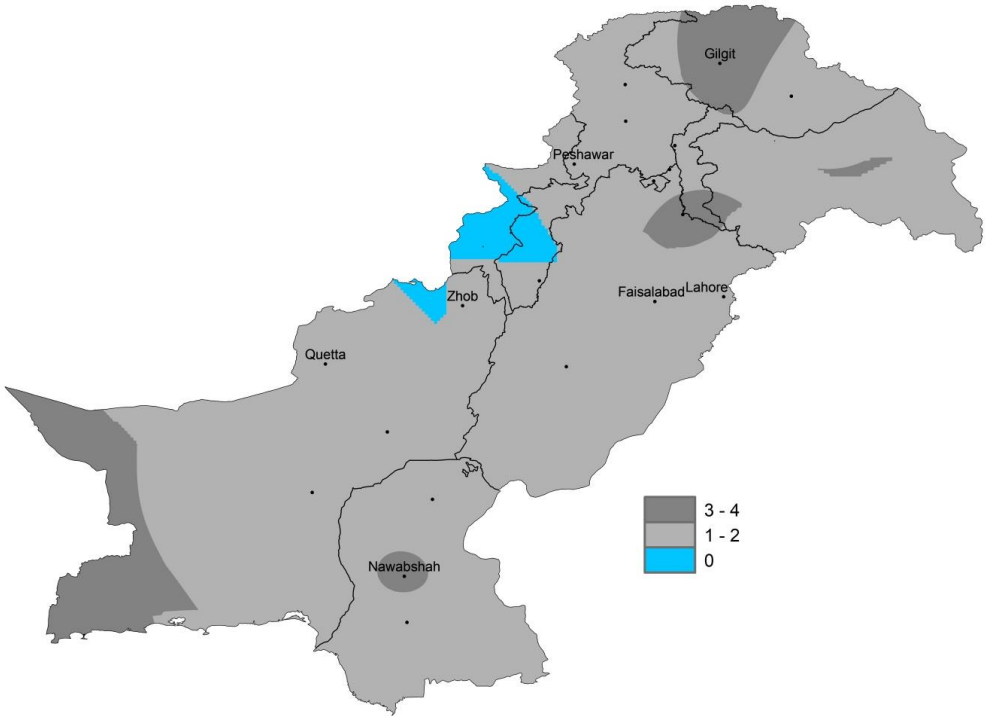
Mean Relative Humidity (%) during the Previous week (9<sup>th</sup> September -15<sup>th</sup> September, 2019)



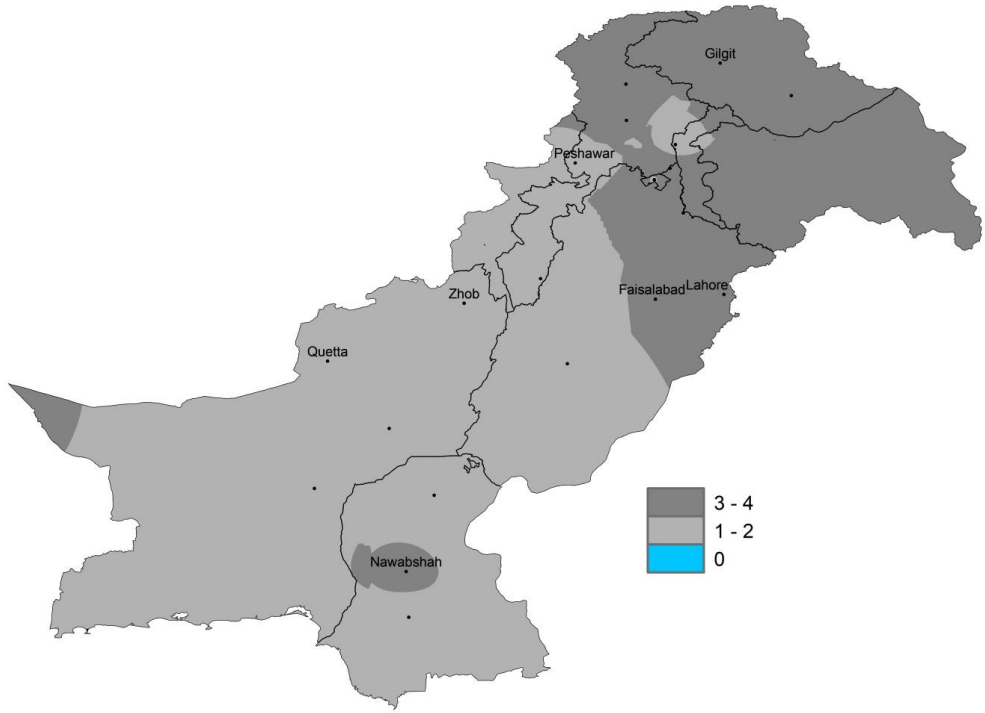
Total Growing Degree Days accumulated during the Previous week (9<sup>th</sup> September -15<sup>th</sup> September, 2019)



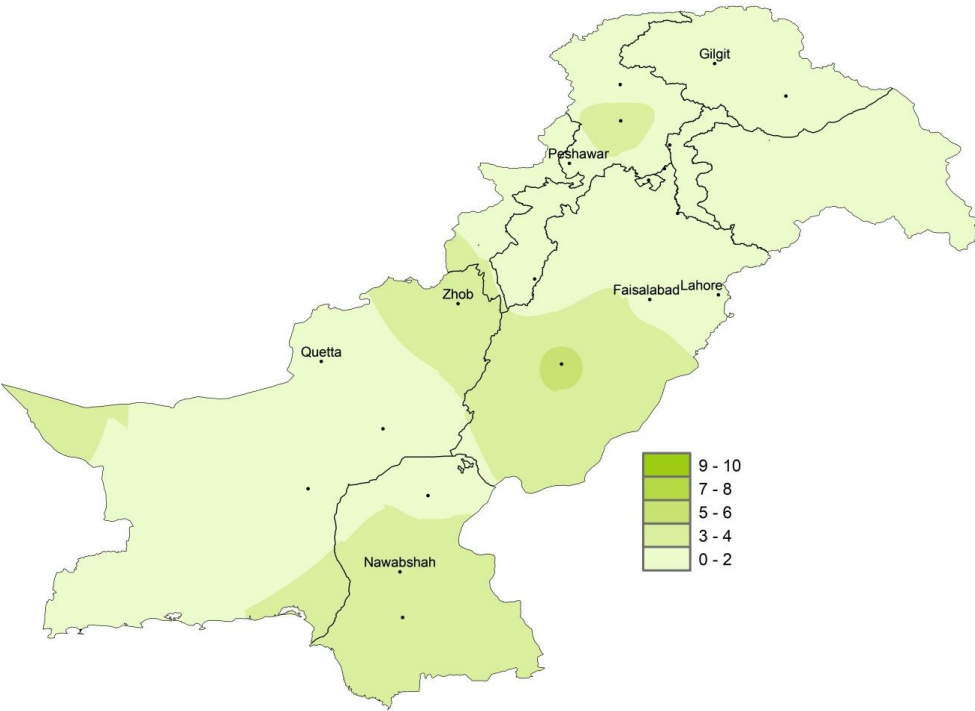
Mean Cloudiness (Oktas) at 0800PST during the Previous week (9<sup>th</sup> September -15<sup>th</sup> September, 2019)



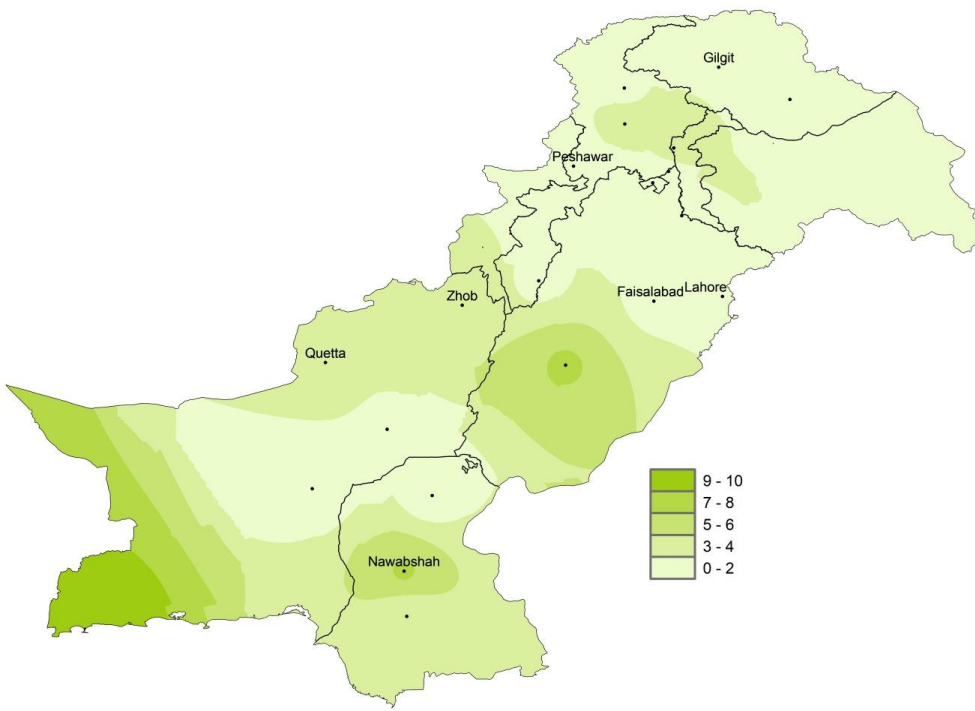
Mean Cloudiness (Oktas) at 1700PST during the Previous week (9<sup>th</sup> September -15<sup>th</sup> September, 2019)



Mean Wind Speed (Knots) at 0800PST during the Previous week (9<sup>th</sup> September -15<sup>th</sup> September, 2019)



Mean Wind Speed (Knots) at 1700PST during the Previous week (9<sup>th</sup> September -15<sup>th</sup> September, 2019)





**Weekly Weather Advisory for Farmers**  
**(17<sup>th</sup> September to 22<sup>nd</sup> September, 2019)**

Weak seasonal low lies over north-east Balochistan. A shallow westerly wave is likely to affect upper parts of the country during mid-week.

**TUESDAY**  
**17-09-2019**

Mainly dry weather is expected in most parts, while hot in plain areas of the country. However, rain/wind-thunderstorm is expected at few places in Rawalpindi and Gujranwala divisions.

**WEDNESDAY**  
**18-09-2019**

Mainly dry weather is expected in most parts, while hot in plain areas of the country.

**THURSDAY**  
**19-09-2019**

Mainly hot and humid weather is expected in most parts of the country. However, rain / wind-thunderstorm is expected at isolated places in Hazara, Rawalpindi, Gujranwala divisions, Islamabad and Kashmir.

**FRIDAY**  
**20-09-2019**

Mainly hot and humid weather is expected in rest of the country. However, rain/wind-thunderstorm is expected at isolated places in Hazara, Rawalpindi, Gujranwala, Sargodha divisions, Islamabad and Kashmir.

**SATURDAY**  
**21-09-2019**

Mainly hot and humid weather is expected in most parts of the country. However, rain/wind-thunderstorm is expected at isolated places in Hazara, Rawalpindi, Gujranwala, Sargodha divisions, Islamabad and Kashmir.

**SUNDAY**  
**22-09-2019**

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

**ADVISORY FOR FARMERS**

During the last week, light to moderate rainfall occurred at scattered places in Punjab, GB and KPK, while dry weather prevailed over Sindh and Baluchistan. Keeping in view the above expected weather conditions following advisories are suggested for farming community.

1. Use pesticides to avoid the attack from pests on the crops as advised by the agriculture department.
2. Use proper precautions during picking of cotton because the cost of good and clean quality cotton is high than that of the filthy one.

**National Weather Data of Selected Cities from (9<sup>th</sup> to 15<sup>th</sup> September, 2019)**

Stations	Maximum/Day 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							
D.I. Khan	40.6	41.5	202.5	66	0.00	0.0	0.0	0.3	1.4
Faisalabad	39.5	41.6	204.8	64	14.00	0.4	2.3	1.6	1.5
Gawadar	34.7	35.0	165.0	73	0.00	2.0	0.3	0.0	10.0
Gilgit	35.1	36.0	141.3	51	0.00	2.7	3.0	0.0	1.4
Kalam	26.0	28.0	90.5	59	0.50	0.6	2.7	0.0	1.4
Khuzdar	38.1	40.5	182.0	21	0.00	1.1	1.4	0.0	0.9
Lahore	37.5	39.0	192.1	68	0.02	0.0	3.1	1.1	1.4
Malam Jabba	22.0	23.5	91.8	72	0.00	0.7	2.1	3.4	2.9
Mangla	37.0	39.1	189.0	72	50.11	2.7	2.7	1.1	1.7
Multan (PBO)	39.9	41.1	208.8	58	0.00	0.3	0.4	4.3	6.3
Murree	25.1	26.1	110.0	73	3.70	0.9	3.7	0.3	1.1
Muzaffarabad	35.8	36.5	163.6	62	0.00	1.0	1.0	1.0	3.7
Nawabshah	40.4	41.5	155.3	61	0.00	2.3	2.6	3.4	6.3
Peshawar	38.1	40.0	172.3	66	0.00	0.0	1.7	0.9	0.6
Quetta	33.0	34.0	154.3	32	0.00	0.0	0.6	1.2	3.1
Rawalpindi	35.7	37.0	178.9	65	45.60	1.1	1.9	0.3	0.0
Rohri	41.6	43.0	119.5	57	0.00	0.0	0.0	1.4	1.0
Skardu	30.6	32.3	116.2	39	0.00	1.3	2.6	0.0	0.3
Tandojam	37.8	38.5	191.0	62	0.00	0.4	1.2	2.3	2.5
Usta. M	39.0	40.0	178.9	67	0.00	0.4	0.2	0.5	1.7
Zhob	38.1	39.0	181.8	38	0.00	0.0	0.0	2.9	3.7

\*\*\* 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 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)