

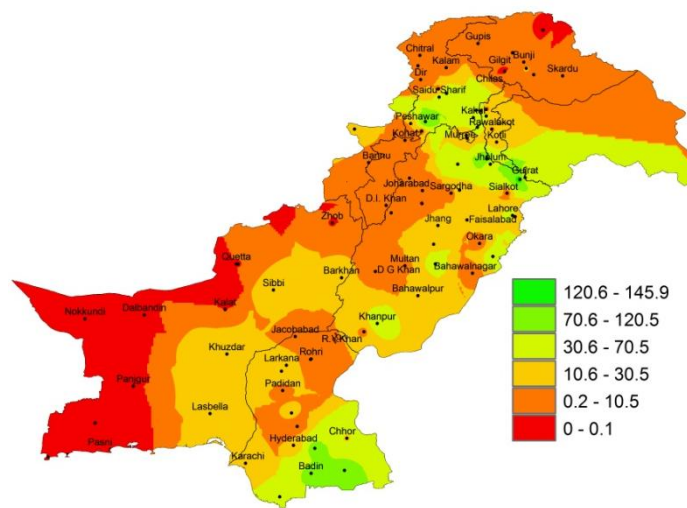
# Weekly Weather and Crop Bulletin for Pakistan

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**Rainfall Distribution (mm) during the  
Previous Week (17<sup>th</sup> July to 23<sup>rd</sup> July, 2017)**



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## Highlights of Past Weather (17<sup>th</sup> July to 23<sup>rd</sup> July, 2017)

Below normal day time temperatures reported from most parts of the country.

Province wise distribution of rainfall reported as follows:

- Light to moderate rainfall reported from most part of Punjab, KP, Sindh, GB and Kashmir during the week.
- Light to moderate rainfall was reported from scattered places of Baluchistan except western parts.

**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 (17<sup>th</sup> July to 23<sup>rd</sup> July, 2017)**

**Punjab**

Light to moderate rainfall reported from most part of Punjab during the week. Weekly maximum and minimum temperatures recorded as 36.2°C & 26.7°C respectively. For the recent week on average 185.2 growing degree days were accumulated by the end of the last week. Average relative humidity recorded as 70% and wind speed in the morning/evening recorded as 1.8/3.4 knots. During the previous week the highest amount of rainfall was recorded as 156.01 mm at Kamra & highest maximum temperature was recorded as 41.5°C at Noorpur Thal.

**Balochistan**

Light to moderate rainfall was reported from scattered places of Balochistan province during the week. Weekly maximum and minimum temperatures recorded as 37.5°C & 24.2°C respectively. For the recent week on average 176.3 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 49% and wind speed in the morning/evening recorded as 1.8/5.0 knots. During the previous week the highest amount of rainfall was recorded as 30.6 mm at Khuzdar & highest maximum temperature was recorded as 46.0°C at Turbat.

**Khyber Pakhtunkhwa**

Light to moderate rainfall reported from most part of Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 33.8°C & 22.0°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 65% and wind speed in the morning/evening recorded as 0.8/3.7 knots. During the previous week the highest amount of rainfall was recorded as 118.01 mm at Risalpur & highest maximum temperature was recorded as 41.4 °C at Bannu.

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

Light to moderate rainfall reported from most part of Gilgit-Baltistan & Kashmir during the week. Weekly maximum and minimum temperatures recorded as 32.1°C & 20.5°C respectively. For the recent week on average 144.0 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 58% and wind speed in the morning/evening recorded as 0.8/3.0 knots. During the previous week the highest amount of rainfall was recorded as 51.4 mm at Muzaffarabad & highest maximum temperature was recorded as 43.0°C at Chilas.

**Sindh**

Light to moderate rainfall reported from most part of Sindh during the week. Weekly maximum and minimum temperatures recorded as 37.7°C & 29.8°C respectively. For the recent week, on average 193.0 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 2.9/4.5 knots. During the previous week the highest amount of rainfall was recorded as 82.51 mm at Mirpurkhas, highest maximum temperature was recorded as 44.0°C at Dadu.

### **Past Weather for Major Agricultural Plains (17<sup>th</sup> July to 23<sup>rd</sup> July, 2017)**

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

Rainfall reported as 15.8 mm from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 4.9/3.0 Oktas while, average relative humidity observed as 76%. Mean day time temperature recorded as 34.9°C & for the recent week 164.9 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.6/1.9 knots.

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

Rainfall reported as 3.0 mm from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 2.4/2.4 Oktas while, average relative humidity observed as 69%. Mean day time temperature recorded as 32.3°C & for the recent week 191.2 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.8/0.5 knots.

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

Rainfall reported as 4.0 mm from Tandojam during the week; however, cloudiness in the morning/evening recorded as 5.1/3.6 Oktas while, average relative humidity observed as 74%. Mean day time temperature recorded as 36.6°C & for the recent week 181.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/1.4 knots.

#### **Usta Muhammad (Eastern Balochistan)**

Rainfall reported as trace (not measurable) from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded 5.9/4.6 Oktas while, average relative humidity observed as 68%. Mean day time temperature recorded as 33.3°C & for the recent week 198.2 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.3/6.6 knots.

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

Dry weather reported from Quetta during the week; however, cloudiness in the morning/evening recorded as 2.1/3.0 Oktas while, average relative humidity observed as 25.0%. Mean day time

temperature recorded as 35.9°C & for the recent week 162.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.7/3.1 knots.

### **Past Weather for Sub-Regional Agricultural Plains (17<sup>th</sup> July to 23<sup>rd</sup> July, 2017)**

#### **Multan**

Rainfall reported as 6.60 mm from Multan during the week; however, cloudiness in the morning/evening recorded as 3.4/4.0 Oktas while, average relative humidity observed as 63%. Mean day time temperature recorded as 38.4°C & for the recent week 202.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 3.7/6.0 knots.

#### **Lahore**

Rainfall reported as 1.81 mm from Lahore during the week; however, cloudiness in the morning/evening recorded as 3.1/6.0 Oktas while, average relative humidity observed as 71%. Mean day time temperature recorded as 35.2°C & for the recent week 183.9 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.3/1.1 knots.

#### **Zhob**

Dry weather reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 2.0/4.0 Oktas while, average relative humidity observed as 49%. Mean day time temperature recorded as 36.5°C & for the recent week 177.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.9/8.7 knots.

#### **Murree**

Rainfall reported as 41.5 mm from Murree during the week; however, cloudiness in the morning/evening recorded as 5.1/7.3 Oktas while, average relative humidity observed as 88%. Mean day time temperature recorded as 23.3°C & for the recent week 103.1 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.4/1.7 knots.

**D.I. Khan**

Dry weather reported from D.I.Khan during the week; however, cloudiness in the morning/evening recorded as 4.1/3.7 Oktas while, average relative humidity observed as 70%. Mean day time temperature recorded as 38.1°C & for the recent week 195.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.4/1.7 knots.

**Peshawar**

Rainfall reported as 11.0 mm from Peshawar during the week; however, cloudiness in the morning/evening recorded as 5.6/4.3 Oktas while, average relative humidity observed as 70%. Mean day time temperature recorded as 36.1°C & for the recent week 179.1 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 2.0 mm from Kalam during the week; however, cloudiness in the morning/evening recorded as 5.0/6.0 Oktas while, average relative humidity observed as 68%. Mean day time temperature recorded as 27.3°C & for the recent week 112.1 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/2.6 knots.

**Gilgit**

Rainfall reported as 1.04 mm from Gilgit during the week; However, cloudiness in the morning/evening recorded as 5.1/6.0 Oktas while, average relative humidity observed as 57%. Mean day time temperature recorded as 33.2°C & for the recent week 148.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.1/7.7 knots.

**Skardu**

Rainfall reported as 0.21 mm from Skardu during the week; However, cloudiness in the morning/evening recorded as 4.7/5.6 Oktas while, average relative humidity observed as 48%. Mean day time temperature recorded as 30.8°C & for the recent week 132.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.6/2.0 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:** Good condition, *flowering* stage.

**Lower Sindh (Tandojam)**

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

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

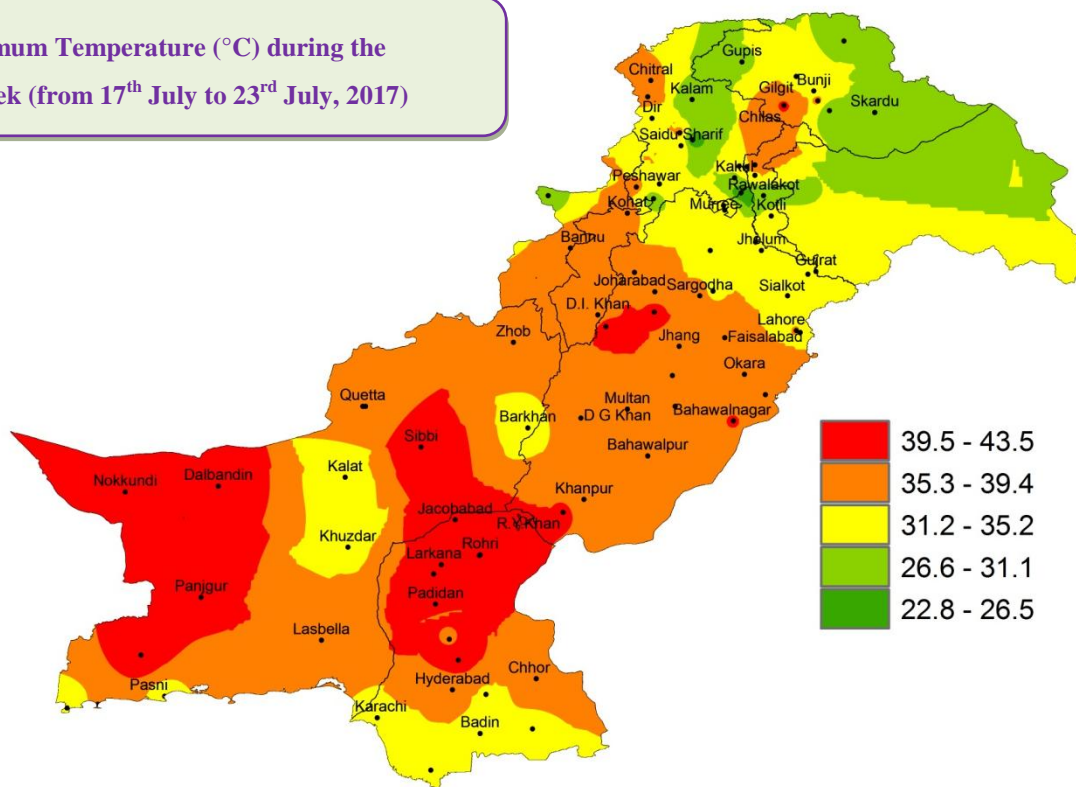
**Northern Baluchistan (Quetta)**

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

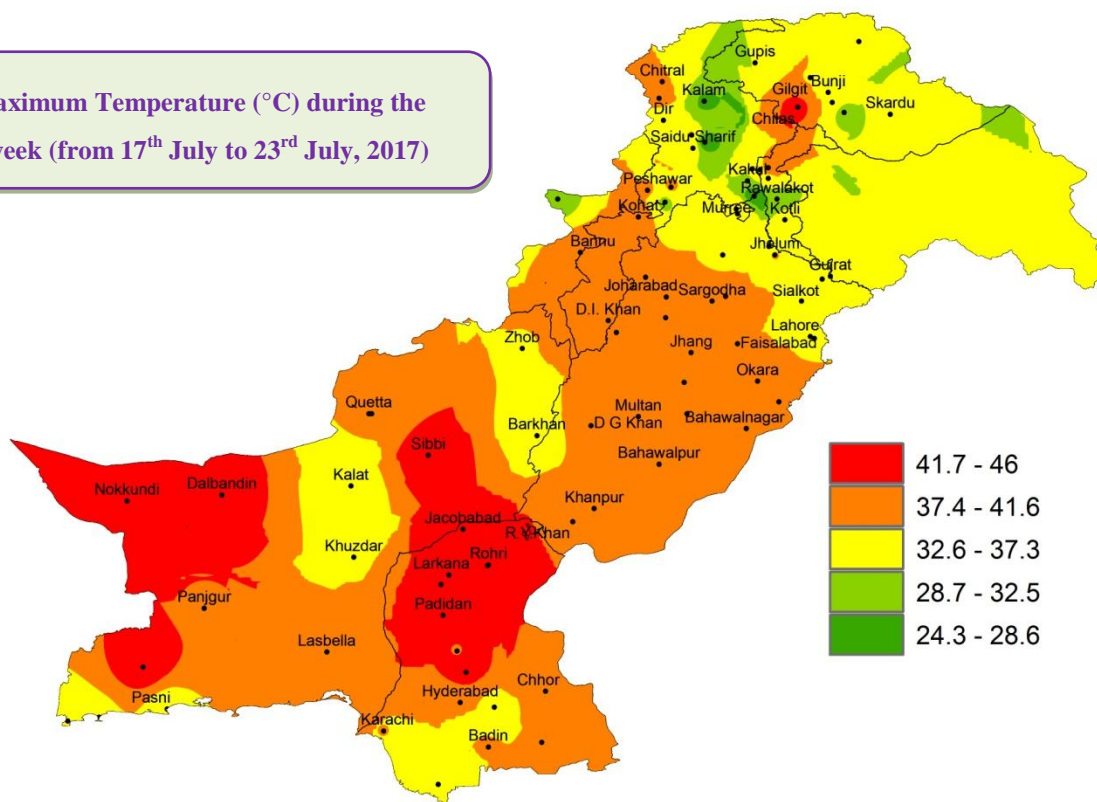
**Eastern Baluchistan (Usta Muhammad)**

Rice PANERI has been transferred in the fields of RAMC Usta Muhammad.

Mean Maximum Temperature (°C) during the  
Previous week (from 17<sup>th</sup> July to 23<sup>rd</sup> July, 2017)

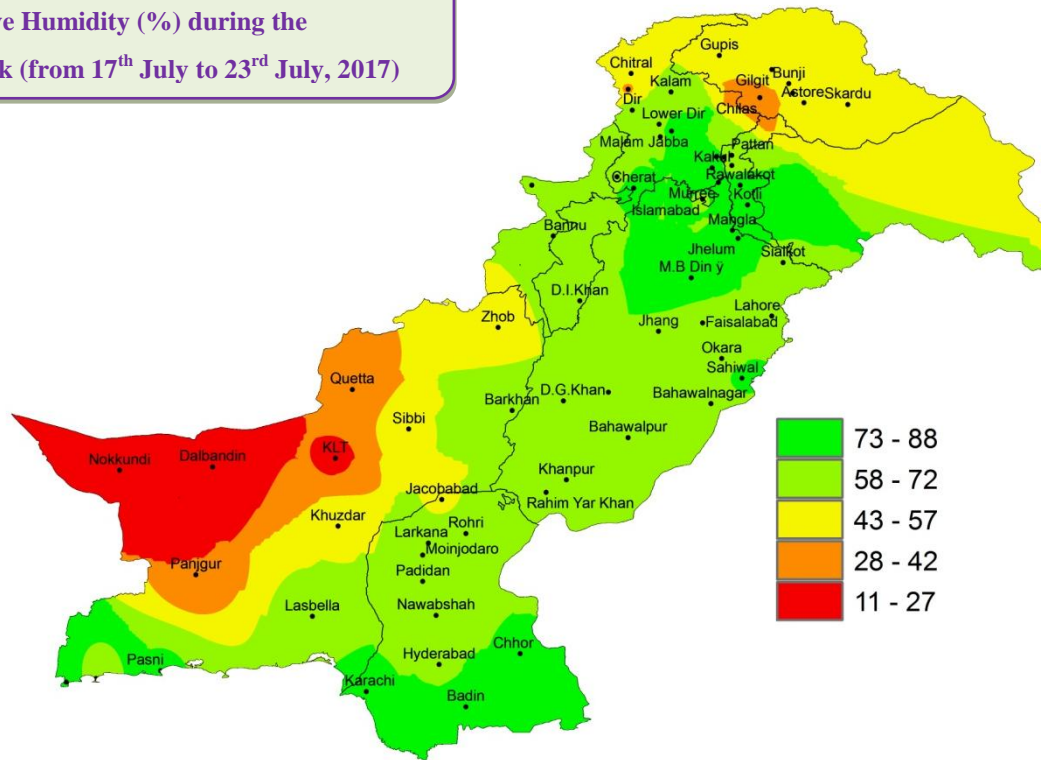


Highest maximum Temperature (°C) during the  
Previous week (from 17<sup>th</sup> July to 23<sup>rd</sup> July, 2017)

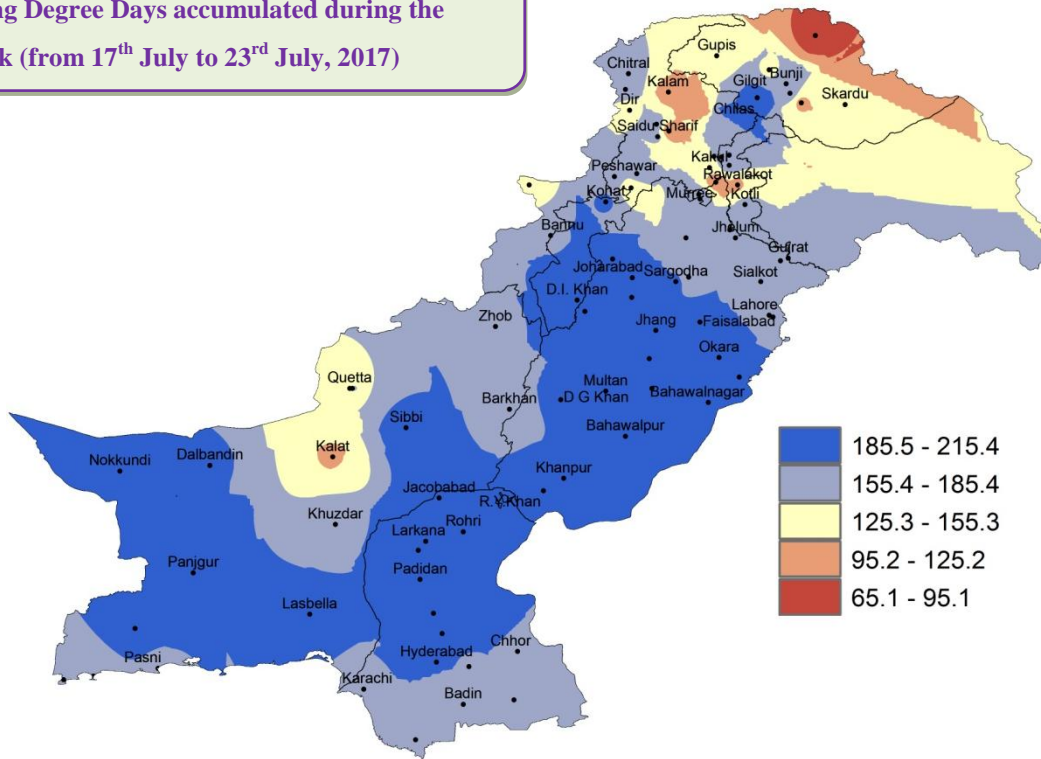




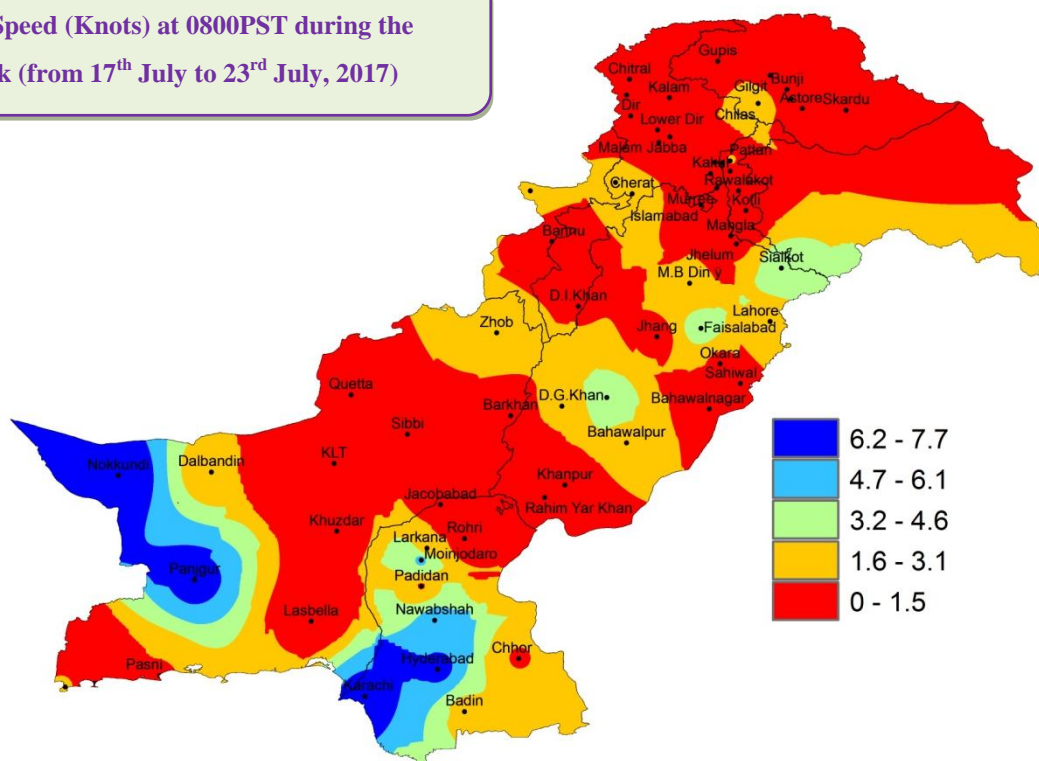
**Mean Relative Humidity (%) during the  
Previous week (from 17<sup>th</sup> July to 23<sup>rd</sup> July, 2017)**



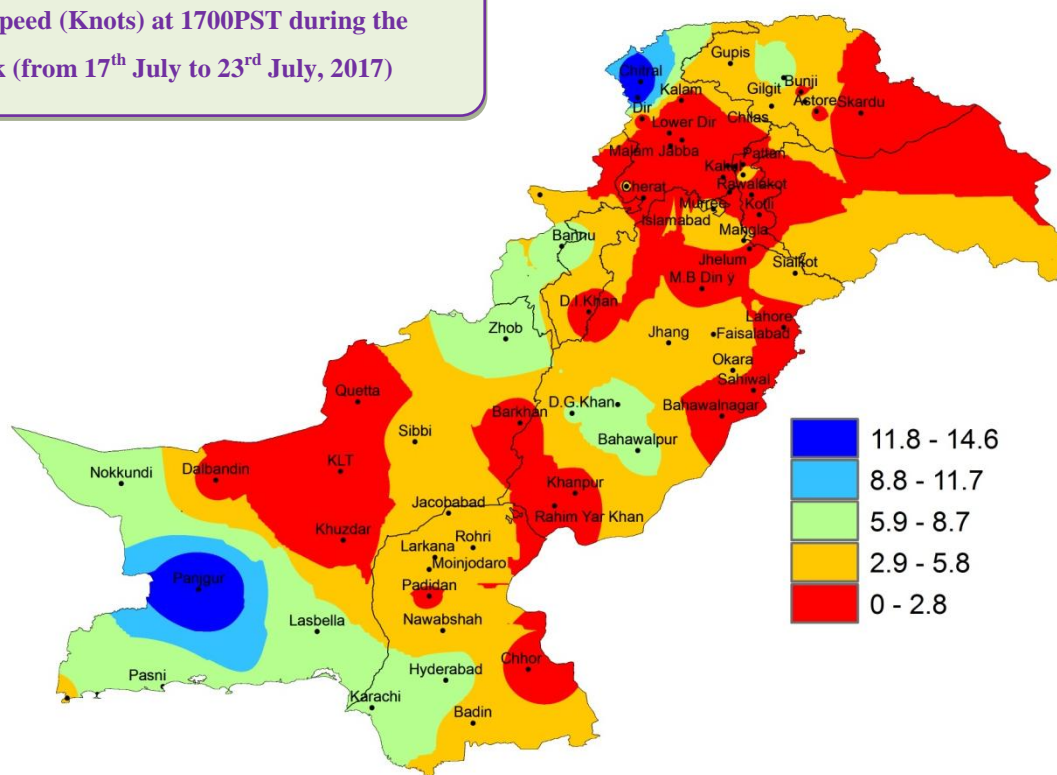
**Total Growing Degree Days accumulated during the Previous week (from 17<sup>th</sup> July to 23<sup>rd</sup> July, 2017)**



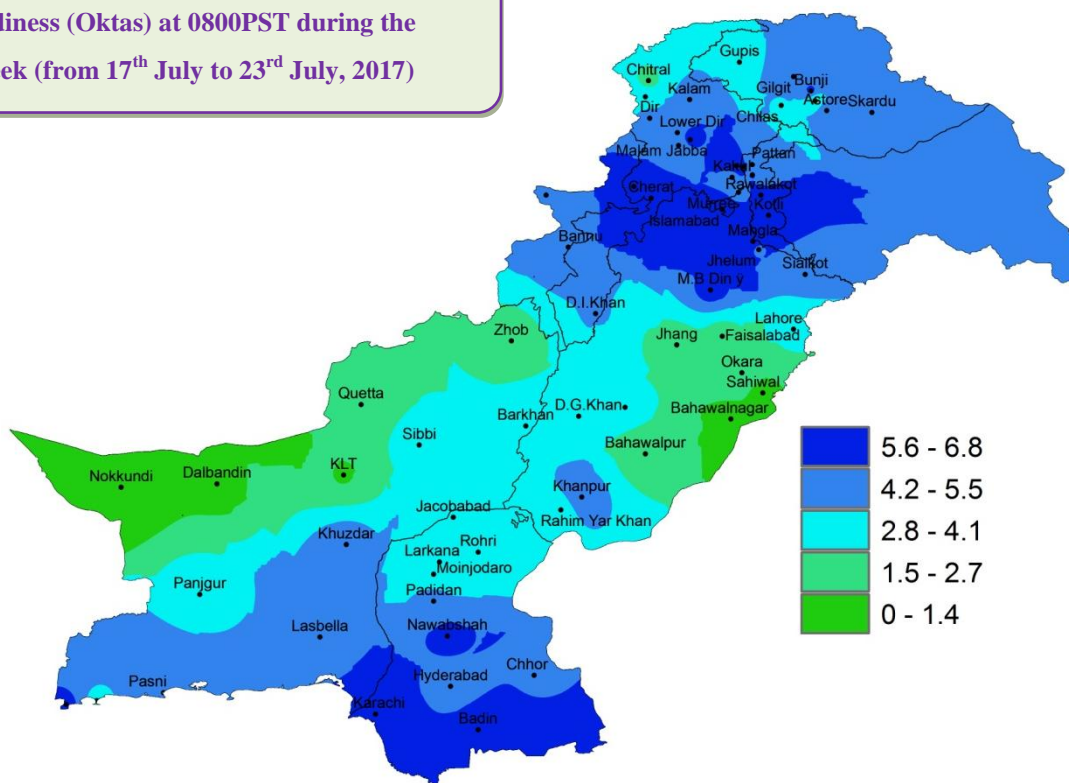
Mean Wind Speed (Knots) at 0800PST during the  
Previous week (from 17<sup>th</sup> July to 23<sup>rd</sup> July, 2017)



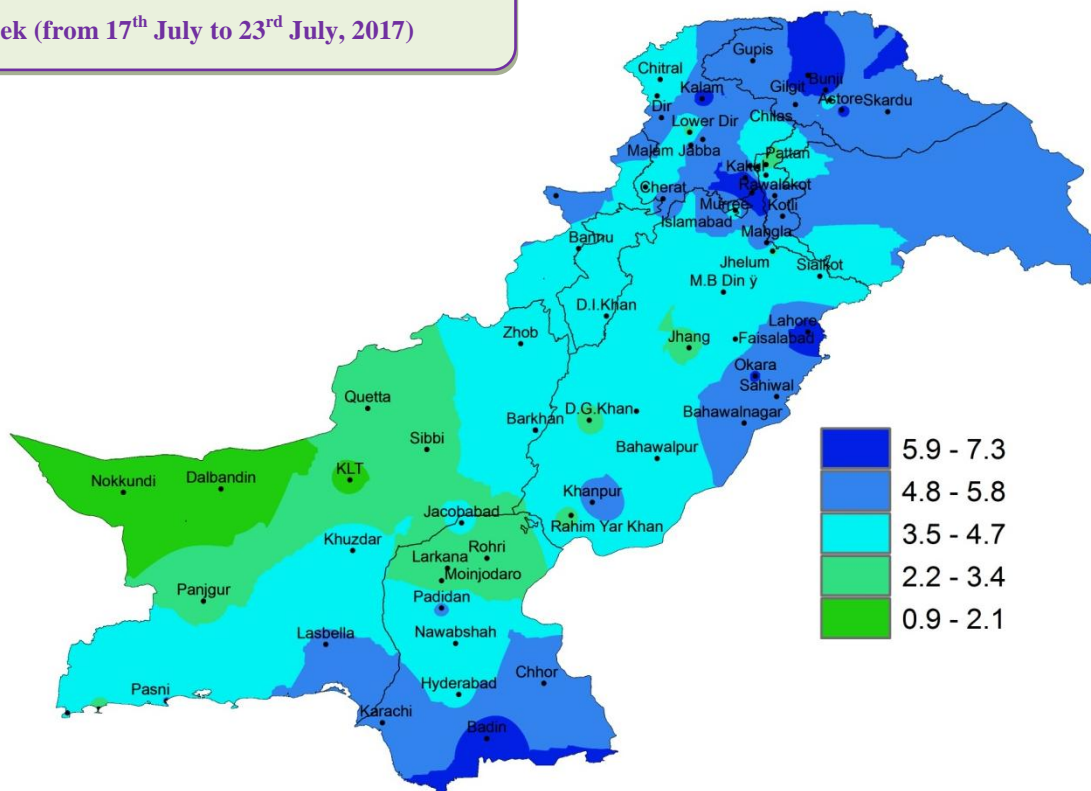
Mean Wind Speed (Knots) at 1700PST during the  
Previous week (from 17<sup>th</sup> July to 23<sup>rd</sup> July, 2017)



Mean Cloudiness (Oktas) at 0800PST during the  
Previous week (from 17<sup>th</sup> July to 23<sup>rd</sup> July, 2017)



Mean Cloudiness (Oktas) at 1700PST during the  
Previous week (from 17<sup>th</sup> July to 23<sup>rd</sup> July, 2017)





**Weekly Weather Advisory for Farmers****(24th July to 30th July, 2017)**

Seasonal low lies over north Balochistan. Strong monsoon currents are penetrating into eastern parts of the country. A westerly wave is affecting upper and central parts of the country and likely to persist during next few days.

**MONDAY (24-07-2017)**

Rain-thunderstorm is expected at a number of places in Mirpurkhas, Sukkur & Bahawalpur divisions, while at isolated places in Hyderabad, Gujranwala, Lahore, Hazara, D.G khan, Sibbi, Zhob divisions & Kashmir. Hot and humid weather is expected elsewhere in the country.

**TUESDAY (25-07-2017)**

Rain-thunderstorm is expected at a number of places in Mirpurkhas, Sukkur & Bahawalpur divisions, while at isolated places in Hyderabad, Gujranwala, Lahore, Hazara, D.G khan, Sibbi, Zhob divisions & Kashmir. Hot and humid weather is expected elsewhere in the country.

**WEDNESDAY (26-07-2017)**

Rain-thunderstorm is expected at scattered places in Kashmir, Islamabad, Upper Punjab (Rawalpindi, Gujranwala, Lahore, Sargodha divisions), while at isolated places in Mirpurkhas, Hyderabad divisions, Khyber Pakhtunkhwa, FATA, south Punjab. Hot and humid weather is expected elsewhere in the country.

**THURSDAY (27-07-2017)**

Rain-thunderstorm is expected at isolated places in Kashmir, Islamabad, Rawalpindi, Lahore, Gujranwala, Mirpurkhas, Hyderabad divisions, KP, FATA. Hot and humid weather is expected elsewhere in the country.

**FRIDAY (28-07-2017)**

Rain-thunderstorm (with isolated heavy falls) accompanied by gusty winds is expected at scattered places in Kashmir, upper Punjab (Rawalpindi, Lahore, Gujranwala, Faisalabad divisions), KP, FATA. while at isolated places in Sahiwal and Bahawalpur divisions. Hot and humid weather is expected elsewhere in the country.

**SATURDAY (29-07-2017)**

Rain-thunderstorm is expected at scattered places in Kashmir, upper Punjab (Rawalpindi, Lahore, Gujranwala, Sargodha, Faisalabad divisions), Islamabad, KP, FATA, while at isolated places in Sahiwal and Bahawalpur divisions and Lower Sindh. Hot and humid weather is expected elsewhere in the country.

**SUNDAY (30-07-2017)**

Rain-thunderstorm (with isolated heavy falls) accompanied by gusty winds is expected at scattered places in Kashmir, upper Punjab (Rawalpindi, Lahore, Gujranwala, Sargodha, Faisalabad divisions), Islamabad, KP, FATA, while at isolated places in Sahiwal, D.G khan and Bahawalpur divisions and Lower Sindh. Hot and humid weather is expected elsewhere in the country.

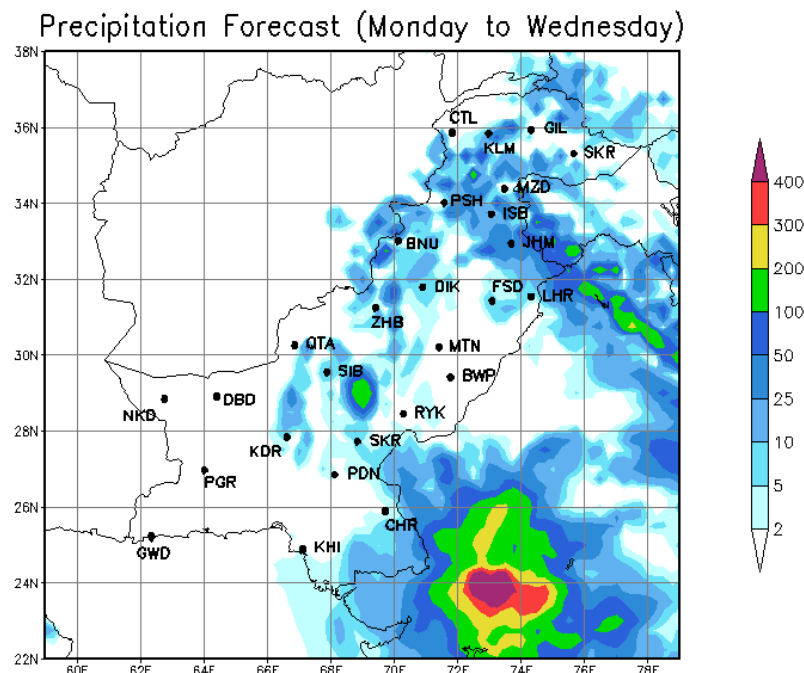
**ADVISES FOR FARMERS**

During the last week, light to moderate rainfall (with isolated heavy spells) occurred in most of the agricultural plains in most parts of the country except western Baluchistan. This may continue with almost the same pattern over northern half of the country in coming days as well. Keeping in view the expected weather conditions following advises are suggested for farming community.

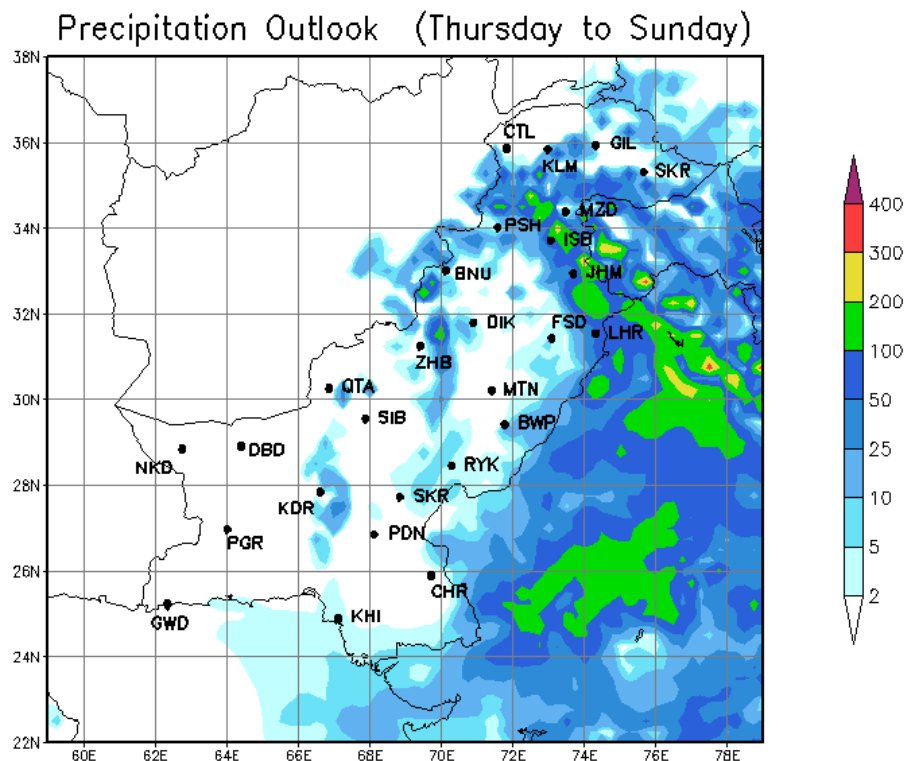
- Pest/viral attacks and more weeds growth are expected after consistent rains in standing crops. Farmers are therefore advised to take in time precautionary measures in this regard.
- Farmers of irrigated areas may irrigate the standing crops as per requirement in accordance with the expected weather conditions.
- Measures may be taken to preserve the crops and livestock from the harsh weather events like hailing, flooding and strong winds etc.

## Weather Outlook from 24<sup>th</sup> July to 30<sup>th</sup> July, 2017

The forecast from 24<sup>th</sup> July to 26<sup>th</sup> July, 2017 shows that light to moderate rainfall is expected at most places of KP, northern Punjab, GB, Kashmir, eastern Baluchistan and coastal belt of Sindh,.



The Outlook from 27<sup>th</sup> July to 30<sup>th</sup> July, 2017 shows that light to moderate rainfall is expected in most parts of northern Punjab, KP, GB, Kashmir, eastern Baluchistan and coastal belt of Sindh.



**National Weather Data of Selected Cities (from 17<sup>th</sup> July to 23<sup>rd</sup> July, 2017)**

Stations	Maximum/Nighttime 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	27	30	113	54	6	5	6	0	3
Badin	34	38	178	79	76	6	6	3	4
Bahawalnagar	39	41	201	60	0	1	6	0	1
Bahawalpur	39	40	202	65	16	2	4	3	6
Balakot	33	35	156	76	65	6	5	0	0
Bannu	39	41	183	59	1	5	4	0	7
Barkhan	34	35	164	69	19	3	5	0	1
Bunji	34	37	169	50	0	6	7	1	2
Cherat	29	31	128	75	1	6	5	2	2
Chhor	36	40	185	75	29	5	5	1	2
Chilas	40	43	204	31	0	4	5	2	3
Chitral	36	37	168	46	0	2	3	1	13
D.G.Khan	38	40	195	58	0	3	3	2	6
D.I.Khan	38	40	196	70	0	4	4	1	2
Dalbandin	44	45	189	13	0	1	1	2	2
Dir	32	34	141	67	7	5	6	0	2
Drosh	37	39	170	40	3	3	4	0	13
Faisalabad	32	34	191	69	3	2	2	1	1
Garidopatta	35	36	171	66	35	6	4	0	4
Gawader	35	36	157	69	0	4	3	0	9
Gilgit	33	37	148	57	1	5	6	1	8
Gupis	30	33	134	43	2	4	5	1	5

Hyderabad	37	38	186	70	10	5	5	7	8
Islamabad	34	36	166	70	26	6	4	1	4
Jacobabad	40	42	209	56	3	4	4	0	5
Jhang	38	39	196	72	24	2	3	1	5
Jhelum	34	38	177	74	57	5	3	1	2
Jiwani	34	34	176	77	0	6	4	2	5
Kakul	30	31	138	82	63	5	6	0	1
Kalam	27	28	112	68	2	5	6	0	3
Kalat	33	34	123	23	0	1	2	0	0
Karachi	34	37	180	76	18	7	6	7	8
Khanpur	38	40	196	65	46	5	5	0	2
Khuzdar	34	37	172	52	31	5	4	0	2
Kotli	33	35	167	79	13	7	5	1	2
Lahore	35	37	184	71	2	3	6	2	1
Larkana	40	44	205	59	17	4	3	2	3
Lasbella	39	41	194	67	12	4	5	0	7
Lower Dir	37	38	179	67	3	5	3	1	2
M.B Din	35	38	178	78	28	6	3	2	1
Malam Jabba	23	24	92	79	56	6	6	0	0
Mangla	34	36	174	74	88	6	6	1	3
Mir Khani	36	37	177	44	13	2	3	1	4
Moinjodaro	40	43	205	62	16	3	3	5	5
Multan(PBO)	38	40	203	63	7	3	4	4	6
Murree	23	25	103	88	42	5	7	1	1
Muzaffarabad	34	36	162	73	51	6	4	0	1
Nawabshah	39	42	194	64	14	6	4	5	5



Nokkundi	41	42	204	11	0	0	1	8	7
Okara	38	39	197	66	4	2	6	1	3
Padidan	39	42	200	69	8	5	5	1	2
Panjgur	40	41	194	27	0	4	3	7	15
Parachinar	29	30	132	69	28	5	6	3	3
Pasni	34	34	175	76	0	5	5	1	6
Pattan	38	40	188	55	1	4	3	2	3
Peshawar	36	38	179	70	11	6	4	2	3
Quetta	36	37	163	25	0	2	3	3	3
Rahim Yar Khan	40	41	203	66	8	3	3	0	2
Rawalakot	26	29	118	87	9	6	6	0	0
Rawalpindi	35	37	165	76	16	5	3	2	2
Rohri	40	42	208	61	5	3	3	0	3
Sahiwal	37	39	191	76	50	1	5	1	2
Saidu Sharif	34	35	162	70	35	5	5	0	0
Sialkot	33	36	172	71	150	4	4	4	5
Sibbi	43	45	207	56	21	4	3	1	4
Skardu	31	34	132	48	0	5	6	1	2
Tandojam	37	39	181	74	4	5	4	0	1
Usta.M	33	36	198	68	0	6	5	2	7
Zhob	37	37	177	49	0	2	4	3	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 سبب باب (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)