

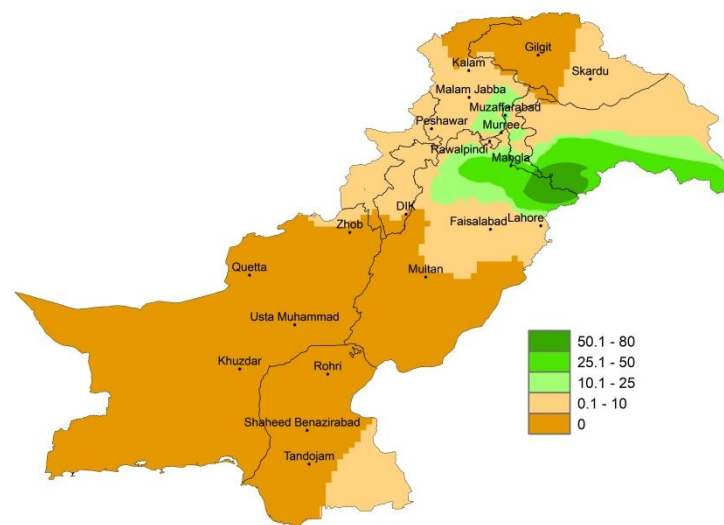
Weekly Weather and Crop Bulletin for Pakistan

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**Rainfall Distribution (mm) during the
Previous Week (16th – 22nd September, 2019)**



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Highlights of Past Weather (16th – 22nd September, 2019)

Above normal day time temperatures were observed all over the country during the last week.

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

1. Moderate rainfall observed in Lower parts of AJK and upper half of Punjab.
2. Light rainfall observed in Khyber Pakhtunkhwa, Gilgit Baltistan.
3. Dry weather observed over lower Punjab, Balochistan 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 (16th –22nd September, 2019)**Punjab**

Moderate rainfall observed in upper half of Punjab during the week. Weekly maximum and minimum temperatures recorded as 35.1°C & 24.6°C respectively. For the recent week on average 174.3 growing degree days were accumulated. Average relative humidity recorded as 67% and wind speed in the morning/evening recorded as 1.8/3.0 Knots. During the previous week the highest precipitation was recorded as 80.01 mm at Sialkot while maximum temperature was recorded as 41.0°C at Rahim Yar Khan.

Baluchistan

Dry weather was observed in Baluchistan during the week. Weekly maximum and minimum temperatures recorded as 36.4°C & 21.1°C respectively. For the recent week on average 164.4 growing degree days were accumulated. Average relative humidity recorded as 48% and wind speed in the morning/evening recorded as 1.3/6.2 Knots. During the previous week the maximum temperature was recorded as 45.0°C at Lasbela.

Khyber Pakhtunkhwa

Light rainfall observed in Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 32.4°C & 18.9°C respectively. For the recent week on average 152.7 growing degree days were accumulated. Average relative humidity recorded as 68% and wind speed in the morning/evening recorded as 1.4/2.1 Knots. During the previous week the highest precipitation recorded as 24.50 mm at Kakul while maximum temperature was recorded as 42.0°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 31.5°C & 15.5°C respectively. For the recent week on average 133.8 growing degree days were accumulated. Average relative humidity recorded as 57% and wind speed in the morning/evening

recorded as 1.1/2.1 Knots. During the previous week the highest precipitation recorded as 35.00 mm at Muzaffarabad while maximum temperature was recorded as 38.5°C at Chilas.

Sindh

Dry weather was observed in Sindh during the week. Weekly maximum and minimum temperatures recorded as 38.5°C & 26.2°C respectively. For the recent week, on average 196.3 growing degree days were accumulated. Average relative humidity recorded as 60% and wind speed in the morning/evening recorded as 2.7/3.1 Knots. During the previous week the highest precipitation recorded as 2.00 mm at Mithi while maximum temperature was recorded as 43.0°C at Nawabshah.

Past Weather for Major Agricultural Plains **(16th –22nd September, 2019)**

Rawalpindi (Potohar region)

16.00 mm rainfall reported from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 2.7/0.7 Oktas while, average relative humidity observed as 77%. Mean day time temperature recorded 32.0°C & for the recent week 155.1 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.4/0.6 Knots.

Faisalabad (Central Punjab)

1.00 mm rainfall reported from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 0.0/4.4 Oktas while, average relative humidity observed as 65%. Mean day time temperature recorded as 36.2°C & for the recent week 189.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.8/0.9 Knots.

Tandojam (Lower Sindh)

Dry weather reported from Tandojam during the week; however, cloudiness in the morning/evening recorded as 0.0/0.4 Oktas while, average relative humidity observed as 68%. Mean day time temperature recorded as 38.1°C & for the recent week 187.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.2/2.5 Knots.

Usta Muhammad (Eastern Baluchistan)

Dry weather reported from Usta Muhammad during the week; however, clear sky was observed in the morning/evening while, average relative humidity observed as 65%. Mean day time temperature recorded as 39.1°C & for the recent week 171.8 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 0.1/0.3 Oktas while, average relative humidity observed as 21%. Mean day time temperature recorded as 32.1°C & for the recent week 148.5 growing degree days accumulated.

Wind speed recorded in the morning/evening as 2.0/2.6 Knots.

Past Weather for Sub-Regional Agricultural Plains (16th –22nd September, 2019)

Multan

Dry weather reported from Multan during the week; however, cloudiness in the morning/evening recorded as 0.9/1.3 Oktas while, average relative humidity observed as 60%. Mean day time temperature recorded as 37.2°C & for the recent week 194.7 growing degree days accumulated. Wind speed recorded in the morning/evening as 3.4/5.7 Knots.

Lahore

0.01 mm (Trace) rainfall was reported from Lahore during the week; however, cloudiness in the morning/evening recorded as 1.6/5.0 Oktas while, average relative humidity observed as 67%. Mean day time temperature recorded as 34.8°C & for the recent week 179.4 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.6/2.0 Knots.

Zhob

Dry weather reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 0.3/0.9 Oktas while, average relative humidity observed as 44%. Mean day time temperature recorded as 35.4°C & for the recent week 162.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 4.0/4.4 Knots.

Murree

7.70 mm rainfall was reported from Murree during the week; however, cloudiness in the morning/evening recorded as 3.4/5.3 Oktas while, average relative humidity observed as 75%. Mean day time temperature recorded as 22.4°C & for the recent week 106.4 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.4/1.1 Knots.

D.I. Khan

Dry weather reported from D.I. Khan during the week; however, cloudiness in the morning/evening recorded as 2.0/1.1 Oktas while, average relative humidity observed as 67%. Mean day time temperature recorded as 38.1°C & for the recent week 187.8 growing degree days accumulated.

Wind speed recorded in the morning/evening as 1.7/1.1 Knots.

Peshawar

Dry weather reported from Peshawar during the week; however, cloudiness in the morning/evening recorded as 2.9/1.4 Oktas while, average relative humidity observed as 66%. Mean day time temperature recorded as 35.8°C & for the recent week 173.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.1/2.6 Knots.

Kalam

Dry weather reported from Kalam during the week; however, cloudiness in the morning/evening recorded as 1.9/3.4 Oktas while, average relative humidity observed as 64%. Mean day time temperature recorded as 25.3°C & for the recent 115.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/2.0 Knots.

Gilgit

Dry weather reported from Gilgit during the week. However, cloudiness in the morning/evening recorded as 0.3/1.4 Oktas while, average relative humidity observed as 46%. Mean day time temperature recorded as 33.6°C & for the recent week 127.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/2.3 Knots.

Skardu

0.20 mm rainfall reported from Skardu during the week; however, cloudiness in the morning/evening recorded as 1.3/2.3 Oktas while, average relative humidity observed as 42%. Mean day time temperature recorded as 27.0°C & for the recent week 135.7 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/1.1 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, Maturity Stage.

Lower Sindh (Tandojam)

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

Cotton: Good, Boll Opening Stage.

Northern Baluchistan (Quetta)

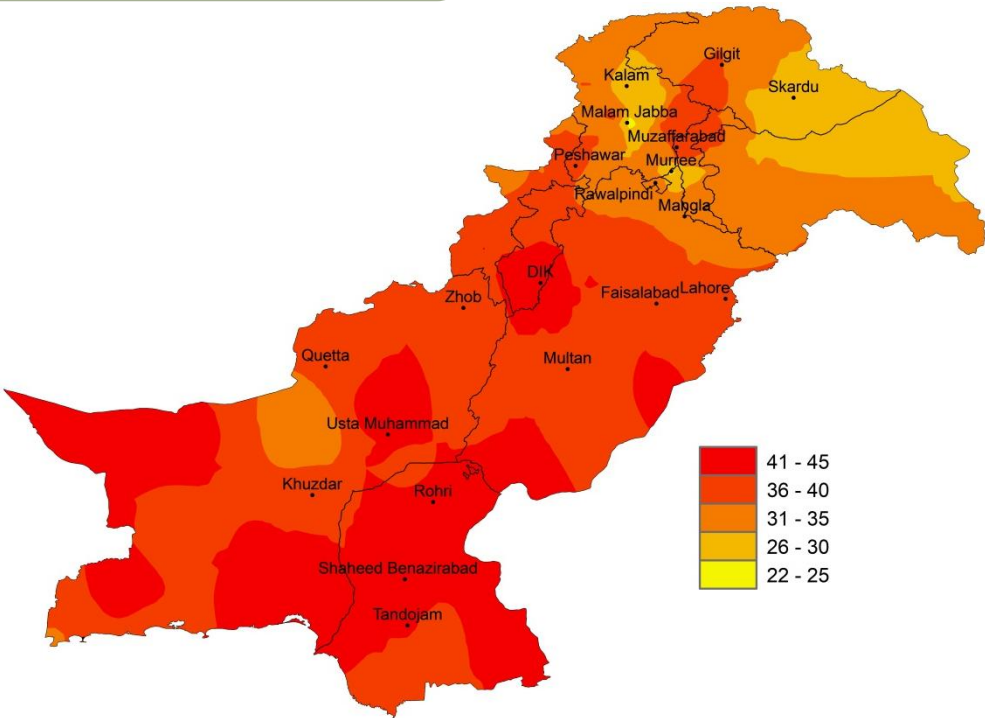
There is presently no crop grown in the fields of RAMC Quetta.

Eastern Baluchistan (Usta Muhammad)

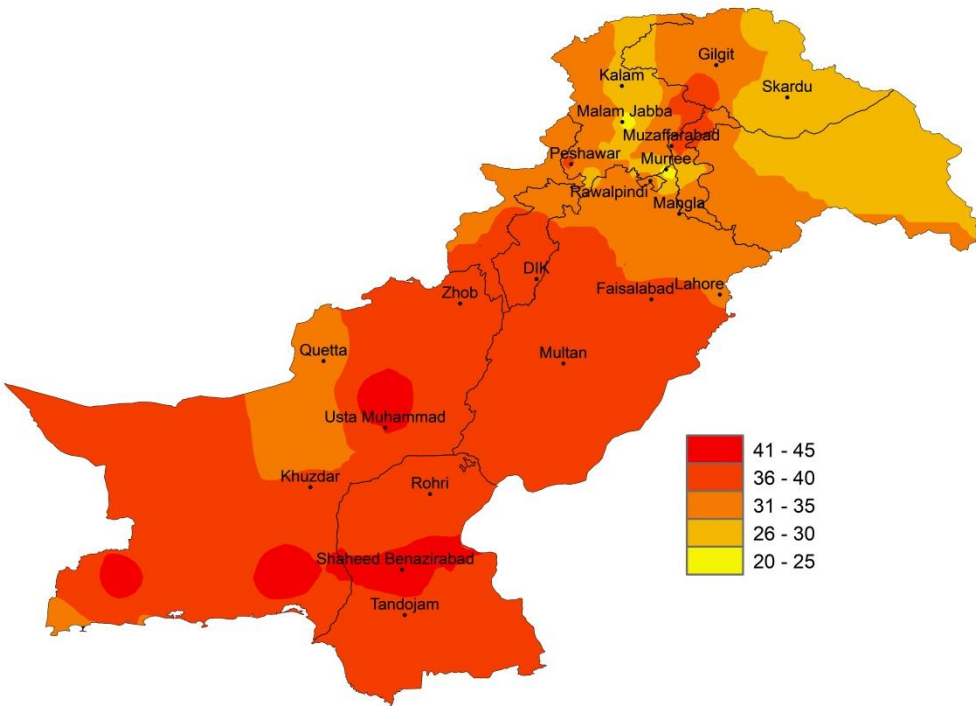
Presently rice crop is sown in the fields of RAMC Usta Muhammad.

Rice: Good, Tillering Stage.

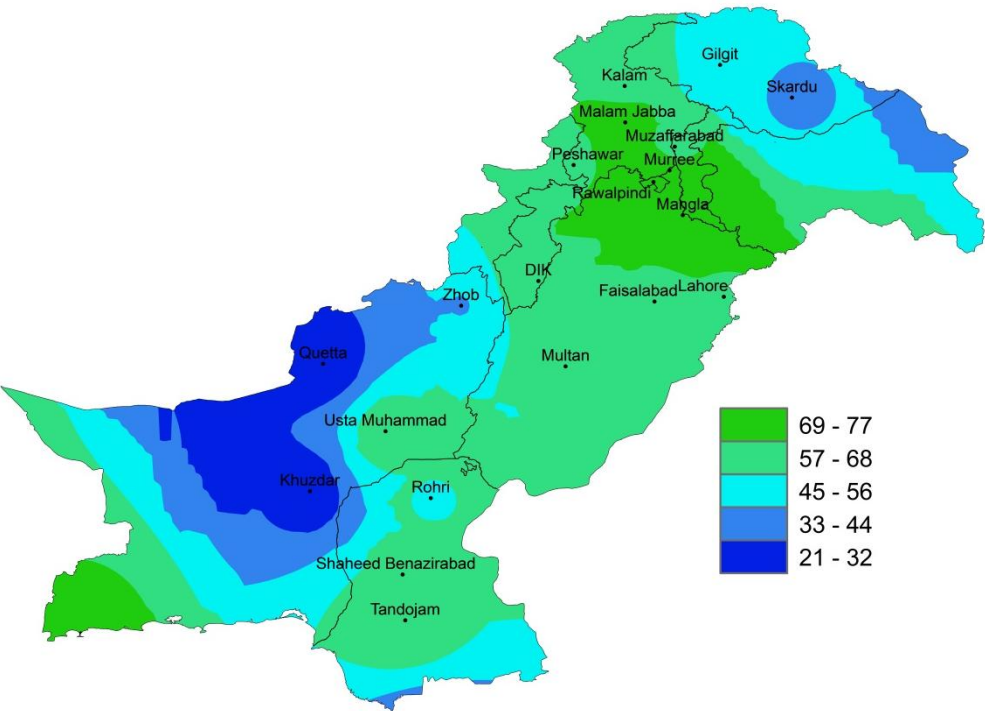
Mean Maximum temperature (°C) during the Previous week (16th -22nd September, 2019)



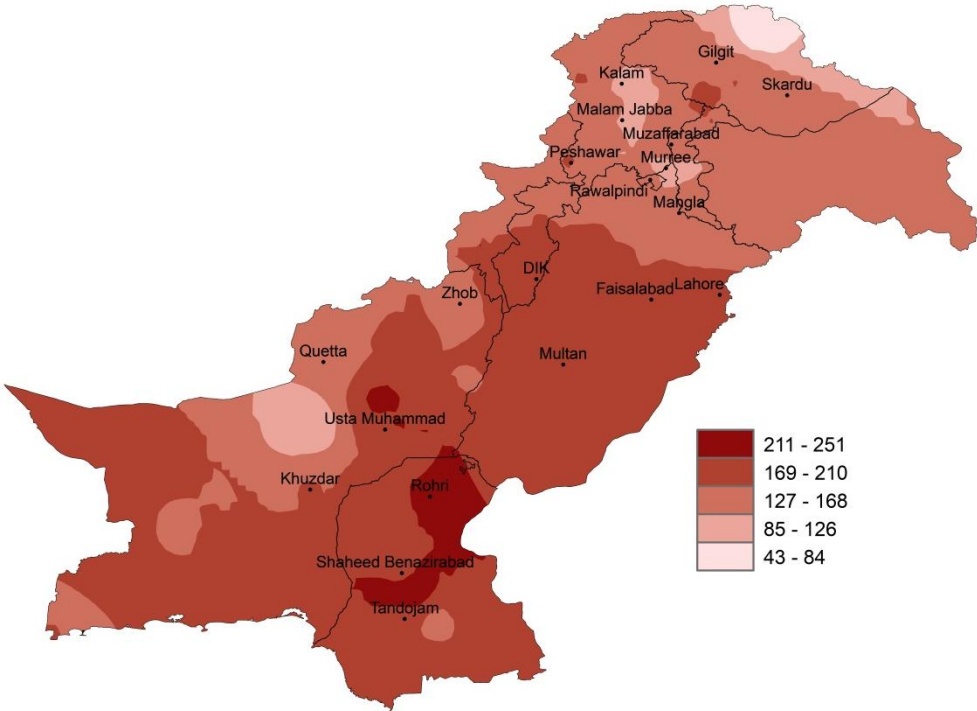
Highest Maximum Temperature (°C) during the Previous week (16th -22nd September, 2019)



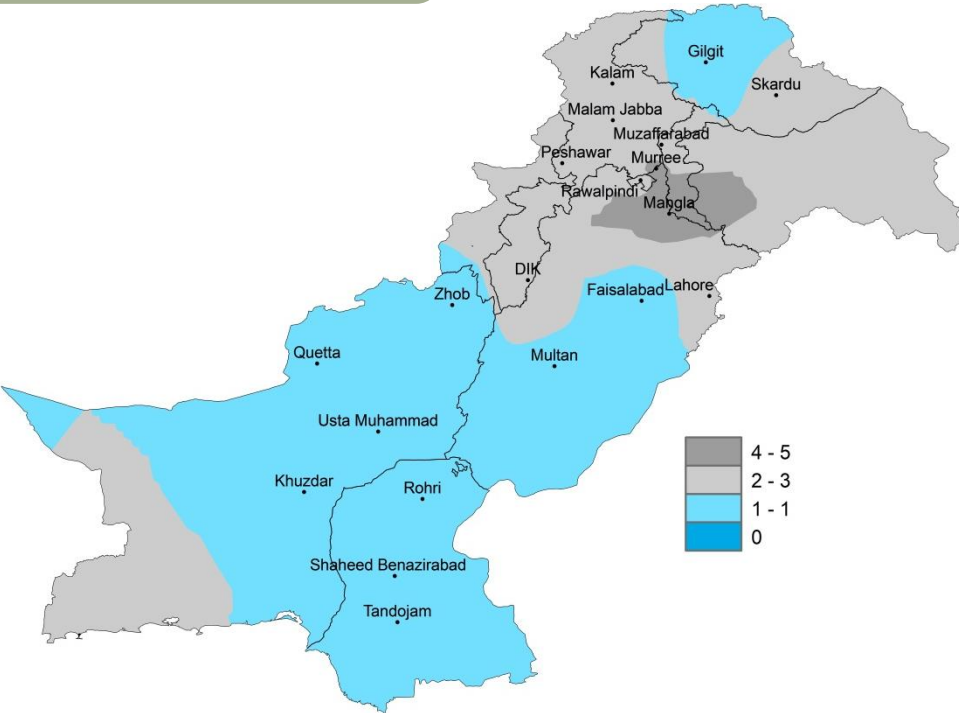
Mean Relative Humidity (%) during the Previous week (16th -22nd September, 2019)



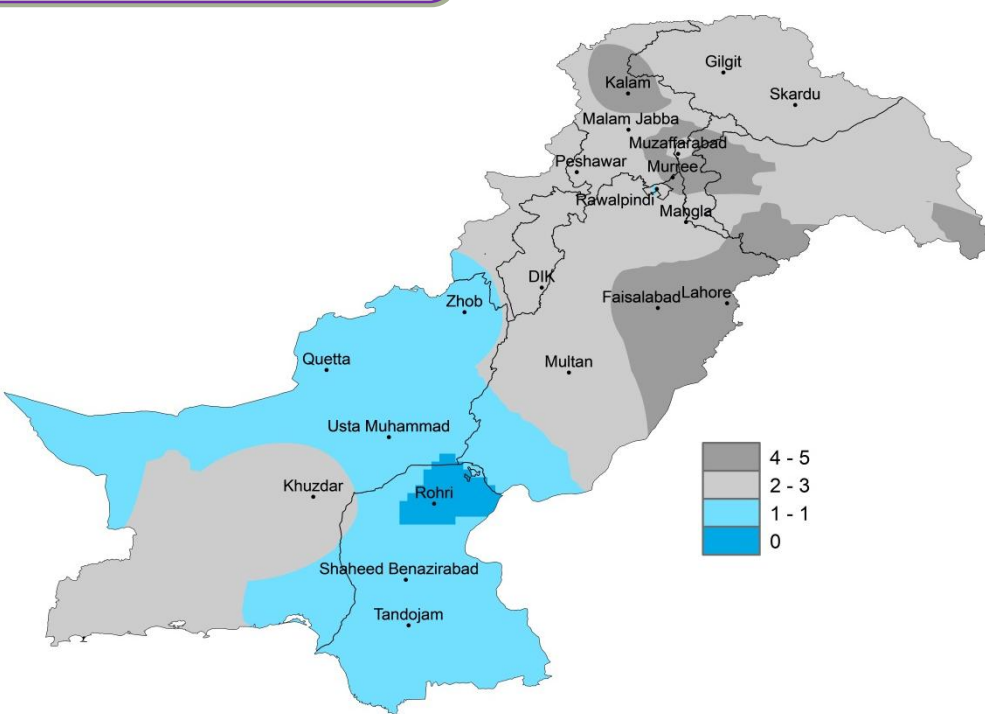
Total Growing Degree Days accumulated during the Previous week (16th -22nd September, 2019)



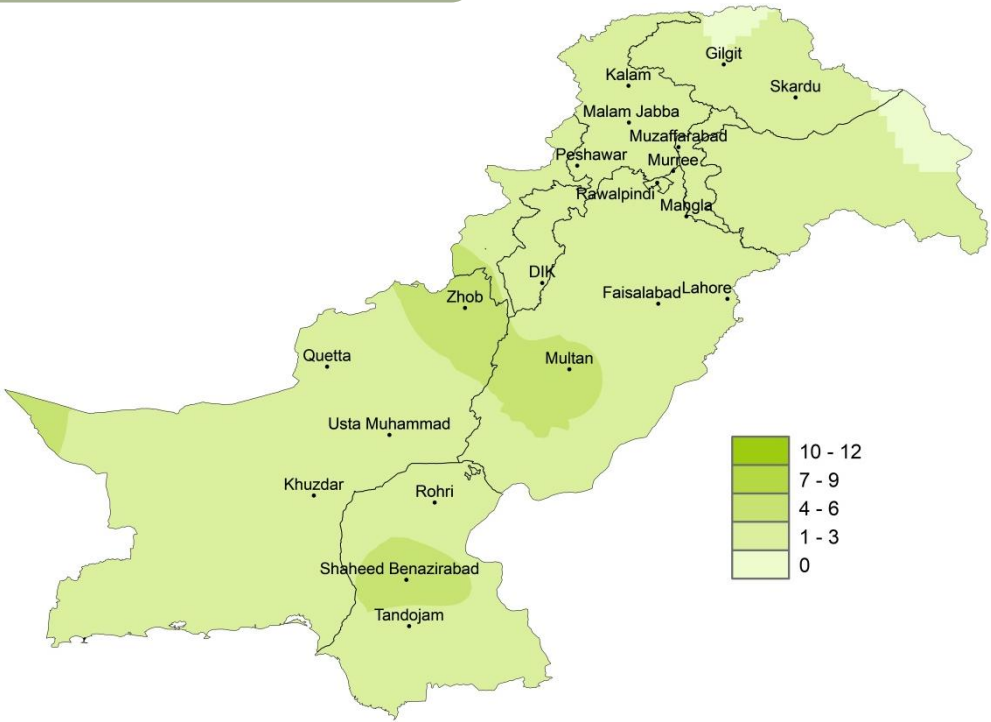
Mean Cloudiness (Oktas) at 0800PST during the Previous week (16th -22nd September, 2019)



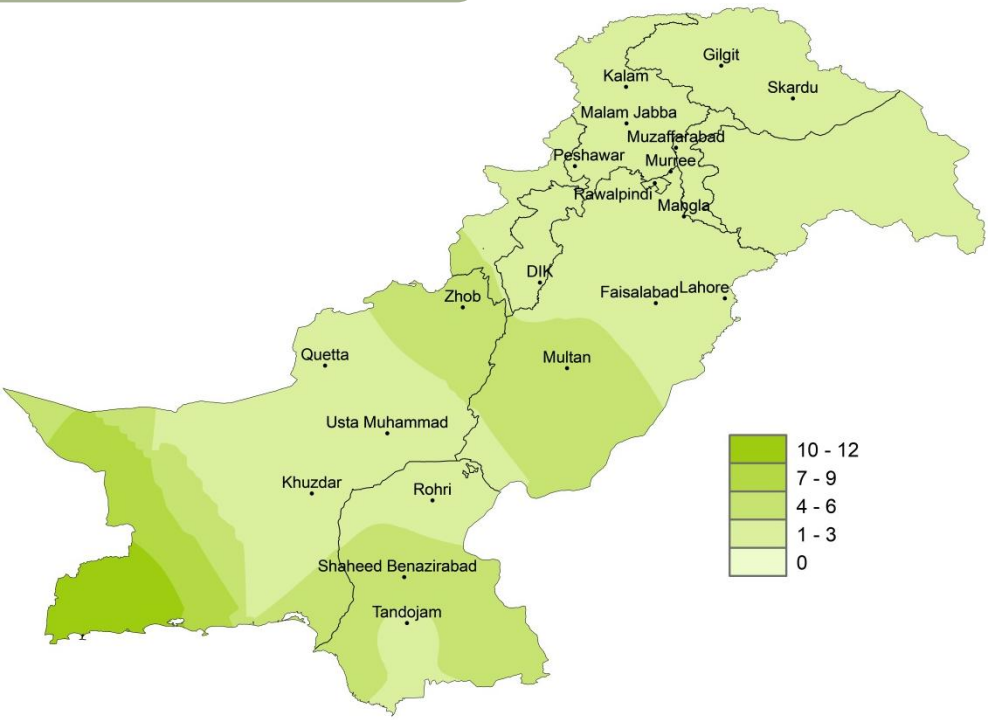
Mean Cloudiness (Oktas) at 1700PST during the Previous week (16th -22nd September, 2019)



Mean Wind Speed (Knots) at 0800PST during the Previous week (16th -22nd September, 2019)



Mean Wind Speed (Knots) at 1700PST during the Previous week (16th -22nd September, 2019)



Weekly Weather Advisory for Farmers**(23rd to 29th September, 2019)**

Seasonal low lies over Northwest Balochistan. Weak monsoon currents are also penetrating in eastern and southern parts of the country & likely to intensify on Tuesday.

MONDAY**23-09-2019**

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

TUESDAY**24-09-2019**

Hot and humid weather is expected in most parts of the country. However, rains/wind-thunderstorm is expected at Rawalpindi, Gujranwala, Hazara Mirpur Khas, Hyderabad divisions, Islamabad and Kashmir.

WEDNESDAY**25-09-2019**

Rain/wind-thunderstorm is expected at Scattered places in Kashmir (with few heavy falls), while at isolated places in Mirpurkhas, Hyderabad, Karachi, Makran, Hazara, Peshawar, Mardan, Rawalpindi Lahore, Gujranwala divisions and Islamabad. Hot and Humid weather is expected elsewhere in the country.

THURSDAY**26-09-2019**

Rain/wind-thunderstorm is expected at scattered places in upper Khyber Pakhtunkhwa, upper Punjab, Islamabad and Kashmir, South-east Sindh(Mirpurkhas, Hyderabad, Karachi, Shaheed Benazirabad divisions), While at isolated places in Sukkur, Makran divisions, Gilgit-Baltistan. Hot and Humid weather is expected elsewhere in the country.

FRIDAY**27-09-2019**

Rains/wind-thunderstorm is expected at scattered places in Upper Punjab, Islamabad, KP, South-east Sindh, Gilgit Baltistan and Kashmir. Hot and Humid weather is expected elsewhere in the country.

SATURDAY**28-09-2019**

Rains/wind-thunderstorm is expected at scattered places in Punjab (Rawalpindi, Gujranwala, Sargodha, Lahore, Faislabad, Sahiwal divisions), Khyber Pakhtunkhwa, Islamabad, Gilgit Baltistan and Kashmir. Hot and Humid weather is expected elsewhere in the country.

SUNDAY**29-09-2019**

Rain/wind-thunderstorm is expected at Scattered places in KP, Upper Punjab, Islamabad, South-east Sindh, Makran division, Gilgit Baltistan and Kashmir, while at isolated places in Upper Sindh and South Punjab. Hot and Humid weather is expected elsewhere in the country.

ADVISORY FOR FARMERS

During the last week, light rainfall occurred at scattered places in Punjab, GB and KPK, while dry weather prevailed over Sindh and Balochistan. 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 (16th September to 22nd 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	38.1	42.0	187.8	67	0.00	2.0	1.1	1.7	1.1
Faisalabad	36.2	38.0	189.3	65	1.00	0.0	4.4	0.8	0.9
Gawadar	34.9	36.0	151.3	74	0.00	2.7	1.1	0.0	12.6
Gilgit	33.6	35.0	127.3	46	0.00	0.3	1.4	0.0	2.3
Kalam	25.3	26.5	115.8	64	0.00	1.9	3.4	0.0	2.0
Khuzdar	35.6	37.0	170.3	25	0.00	0.3	1.7	0.0	1.7
Lahore	34.8	36.5	179.4	67	0.01	1.6	5.0	0.6	2.0
Malam Jabba	20.2	21.5	95.8	73	1.00	2.4	2.7	2.9	2.9
Mangla	32.3	34.2	154.4	76	40.41	3.9	1.4	2.6	2.3
Multan (PBO)	37.2	39.2	194.7	60	0.00	0.9	1.3	3.4	5.7
Murree	22.4	23.8	106.4	75	7.70	3.4	5.3	1.4	1.1
Muzaffarabad	35.3	37.0	157.6	63	35.00	1.7	2.7	1.7	2.9
Nawabshah	35.8	37.4	173.0	66	0.00	2.9	1.4	1.1	2.6
Peshawar	32.1	32.5	148.5	21	0.00	0.1	0.3	2.0	2.6
Quetta	40.8	43.0	197.3	77	0.00	2.7	0.7	1.4	0.6
Rawalpindi	32.0	33.5	155.1	55	16.00	0.0	0.0	1.7	1.7
Rohri	39.9	41.0	244.0	57	0.00	0.7	0.0	4.3	5.1
Skardu	27.0	29.1	135.7	42	0.20	1.3	2.3	0.0	1.1
Tandojam	38.1	40.0	187.8	68	0.00	0.0	0.4	2.2	2.5
Usta. M	39.1	40.0	171.8	65	0.00	0.0	0.0	0.5	1.7
Zhob	35.4	38.0	162.0	44	0.00	0.3	0.9	4.0	4.4

*** 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)