

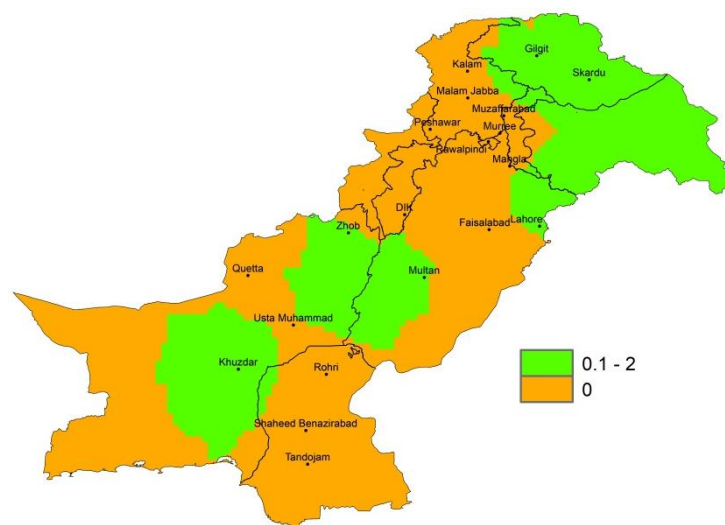
Weekly Weather and Crop Bulletin for Pakistan

**NATIONAL AGROMET CENTRE
PAKISTAN METEOROLOGICAL
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**Rainfall Distribution (mm) during the
Previous Week (7th – 13th October, 2019)**



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Highlights of Past Weather (7th - 13th October, 2019)

Below normal day time temperatures were observed in Sindh and Balochistan, 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, Baluchistan, Gilgit-Baltistan and Azad Kashmir.
2. Dry weather observed over Khyber Pakhtunkhwa and Sindh.

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

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

Editor: Khalida Noureen (Meteorologist)

Past Weather of Provinces (7th - 13th October, 2019)**Punjab**

Light rainfall was observed in Punjab during the week. Weekly maximum and minimum temperatures recorded as 32.6°C & 19.2°C respectively. For the recent week on average 147.2 growing degree days were accumulated. Average relative humidity recorded as 61% and wind speed in the morning/evening recorded as 1.9/1.9 Knots. During the previous week the highest precipitation was recorded as 1.00 mm at Sialkot (AP) while maximum temperature was recorded as 37.5°C at Khanpur.

Baluchistan

Light rainfall was observed in Baluchistan during the week. Weekly maximum and minimum temperatures recorded as 31.7°C & 17.3°C respectively. For the recent week on average 134.3 growing degree days were accumulated. Average relative humidity recorded as 49% and wind speed in the morning/evening recorded as 1.4/5.7 Knots. During the previous week the highest precipitation was recorded as 2.00 mm at Khuzdar while maximum temperature was recorded as 39.0°C at Turbat.

Khyber Pakhtunkhwa

Dry weather was observed in Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 28.6°C & 13.0°C respectively. For the recent week on average 127.6 growing degree days were accumulated. Average relative humidity recorded as 62% and wind speed in the morning/evening recorded as 1.1/2.4 Knots. During the previous week the maximum temperature was recorded as 36.0°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 25.4°C & 10.0°C respectively. For the recent week on average 109.6 growing degree days were

accumulated. Average relative humidity recorded as 62% and wind speed in the morning/evening recorded as 0.4/1.3 Knots. During the previous week the highest precipitation recorded as 1.00 mm at Skardu while maximum temperature was recorded as 32.6°C at Muzaffarabad.

Sindh

Dry weather was observed in Sindh during the week. Weekly maximum and minimum temperatures recorded as 36.2°C & 22.7°C respectively. For the recent week, on average 175.5 growing degree days were accumulated. Average relative humidity recorded as 60% and wind speed in the morning/evening recorded as 2.3/3.8 Knots. During the previous week the maximum temperature was recorded as 40.5°C at Nawabshah.

Past Weather for Major Agricultural Plains**(7th - 13th October, 2019)****Rawalpindi (Potohar region)**

Dry weather reported from Rawalpindi during the week; however, clear sky was observed in the morning/evening while, average relative humidity observed as 71%. Mean day time temperature recorded 30.0°C & for the recent week 147.5 growing degree days accumulated. Calm weather was observed in the morning/evening.

Faisalabad (Central Punjab)

Dry weather reported from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 0.0/1.4 Oktas while, average relative humidity observed as 60%. Mean day time temperature recorded as 34.1°C & for the recent week 165.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.5/0.3 Knots.

Tandojam (Lower Sindh)

Dry weather reported from Tandojam during the week; however, clear sky was observed in the morning/evening while, average relative humidity observed as 66%. Mean day time temperature recorded as 37.0°C & for the recent week 171.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.8/1.4 Knots.

Usta Muhammad (Eastern Baluchistan)

Dry weather reported from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded as 1.0/1.0 Oktas while, average relative humidity observed as 66%. Mean day time temperature recorded as 32.6°C & for the recent week 133.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.8/1.4 Knots.

Quetta (Northern Baluchistan)

0.20 mm rainfall reported from Quetta during the week; however, cloudiness in the morning/evening recorded as 1.3/1.4 Oktas while, average relative humidity observed as 26%. Mean day time temperature recorded as 25.9°C & for the recent week 118.1 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.1/2.6 Knots.

Past Weather for Sub-Regional Agricultural**Plains (7th - 13th October, 2019)****Multan**

Dry weather reported from Multan during the week; however, cloudiness in the morning/evening recorded as 0.0/0.6 Oktas while, average relative humidity observed as 56%. Mean day time temperature recorded as 33.6°C & for the recent week 159.2 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.6/4.0 Knots.

Lahore

Dry weather reported from Lahore during the week; however, however, cloudiness in the morning/evening recorded as 0.7/2.0 Oktas while, average relative humidity observed as 62%. Mean day time temperature recorded as 32.4°C & for the recent week 153.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/1.1 Knots.

Zhob

Dry weather reported from reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 0.3/1.3 Oktas while, average relative humidity observed as 40%. Mean day time temperature recorded as 29.6°C & for the recent week 126.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 4.3/5.9 Knots.

Murree

Dry weather reported from Murree during the week; however, cloudiness in the morning/evening recorded as 1.1/1.6 Oktas while, average relative humidity observed as 63%. Mean day time temperature recorded as 20.3°C & for the recent week 106.4 growing degree days accumulated. Wind speed recorded in the morning/evening as 3.1/0.6 Knots.

D.I. Khan

Dry weather reported from D.I. Khan during the week; however, clear sky was observed in the morning/evening while, average relative humidity observed as 59%. Mean day time temperature recorded as 35.1°C & for the recent week 154.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.3/2.3 Knots.

Peshawar

Dry weather reported from Peshawar during the week; however, cloudiness in the morning/evening recorded as 0.0/0.4 Oktas while, average relative humidity observed as 61%. Mean day time temperature recorded as 32.9°C & for the recent week 139.9 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.3/1.4 Knots.

Kalam

Dry weather reported from Kalam during the week; however, cloudiness in the morning/evening recorded as 1.0/2.3 Oktas while, average relative humidity observed as 65%. Mean day time temperature recorded as 21.6°C & for the recent 115.8 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 2.7/3.4 Oktas while, average relative humidity observed as 55%. Mean day time temperature recorded as 27.5°C & for the recent week 88.3 growing degree days accumulated. Calm weather was observed in the morning/evening..

Skardu

1.00 mm rainfall reported from Skardu during the week; however, cloudiness in the morning/evening recorded as 2.7/3.3 Oktas while, average relative humidity observed as 62%. Mean day time temperature recorded as 19.5°C & for the recent week 135.7 growing degree days accumulated. Calm weather was observed in the morning/evening..

**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, *Picking Stage.*

Northern Baluchistan (Quetta)

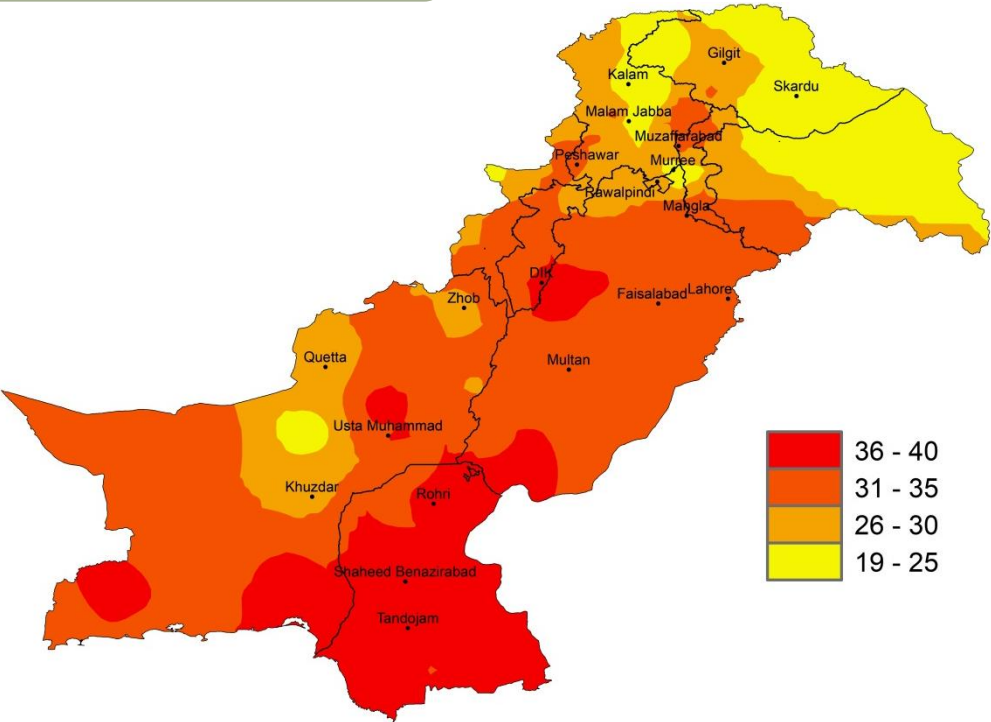
There is presently no crop grown in the fields of RAMC Quetta.

Eastern Baluchistan (Usta Muhammad)

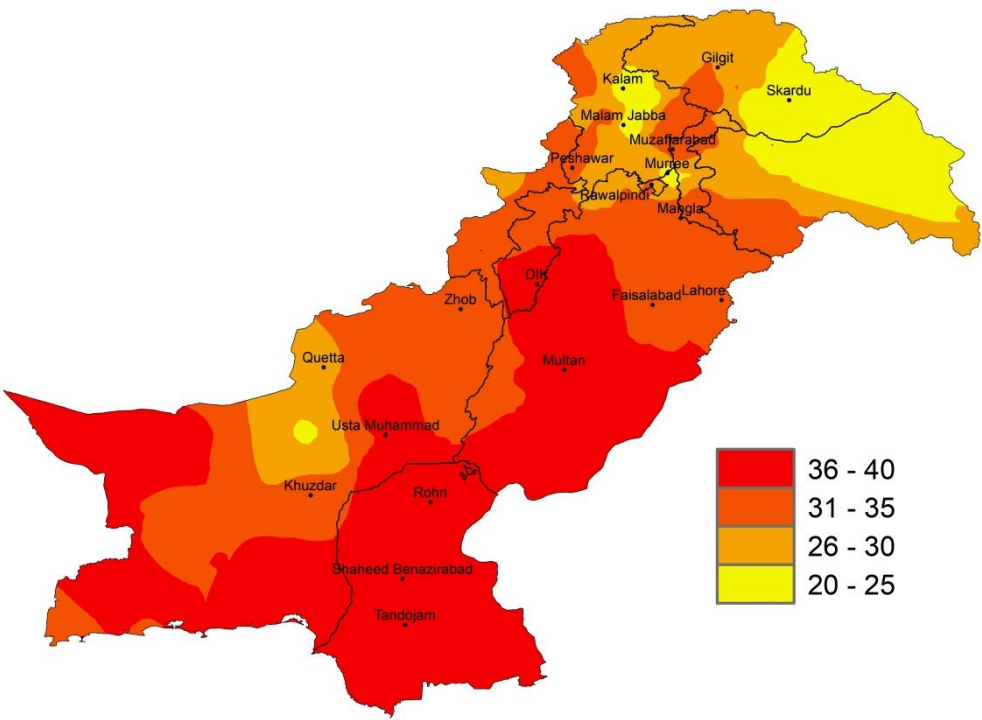
Presently rice crop is sown in the fields of RAMC Usta Muhammad.

Rice: Good, *Flowering Milk Maturity Stage.*

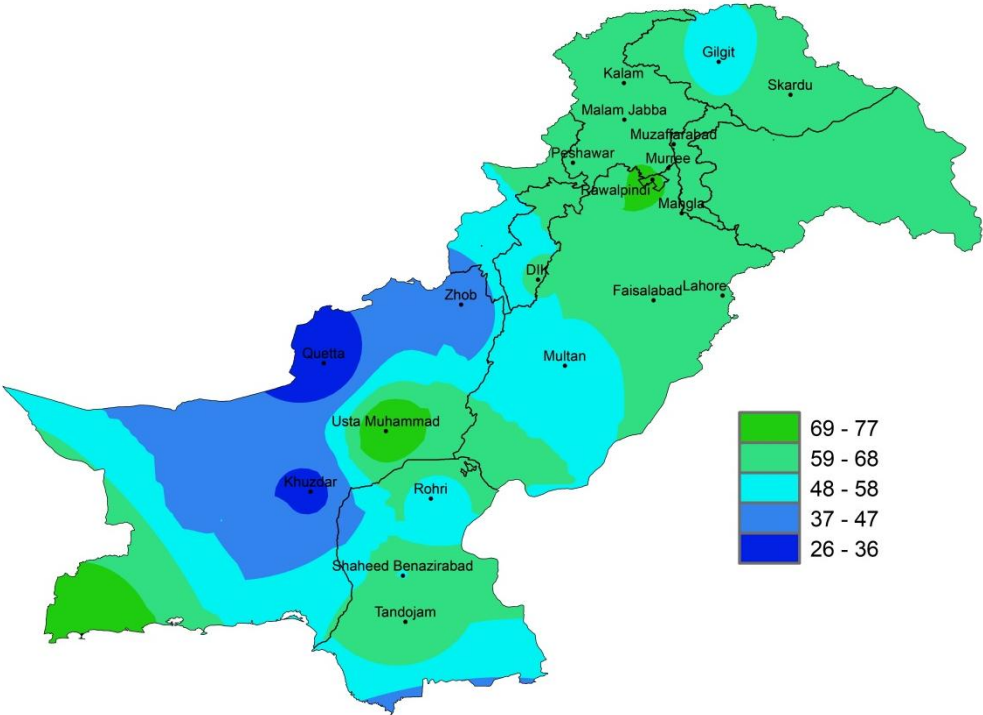
Mean Maximum temperature (°C) during the
Previous week (7th – 13th October, 2019)



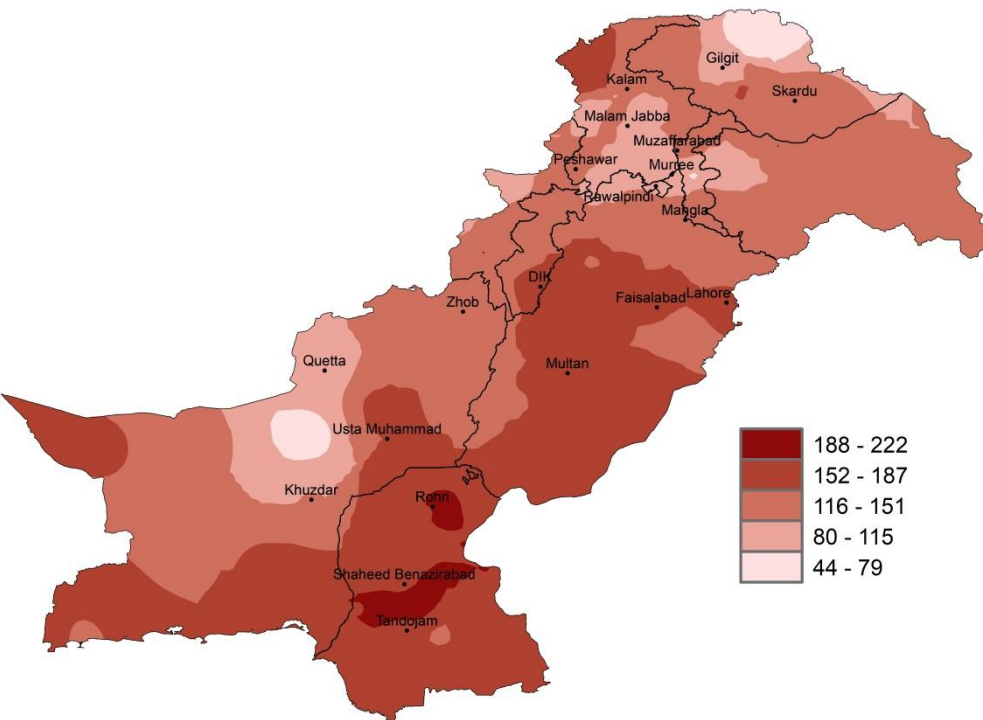
Highest Maximum Temperature (°C) during the
Previous week (7th – 13th October, 2019)



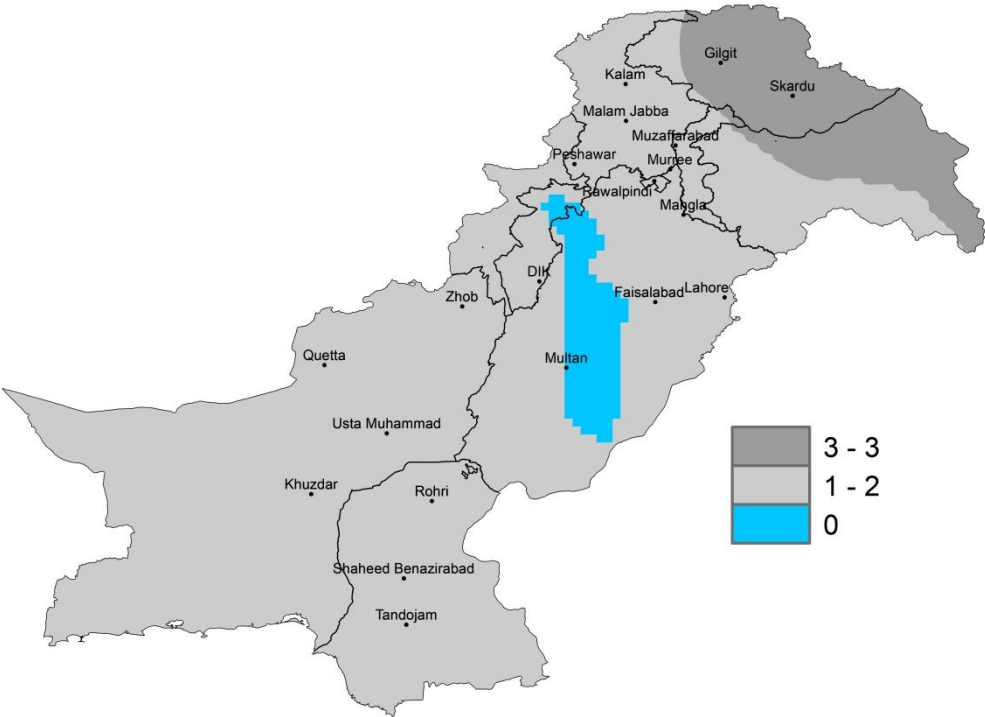
Mean Relative Humidity (%) during the
Previous week (7th – 13th October, 2019)



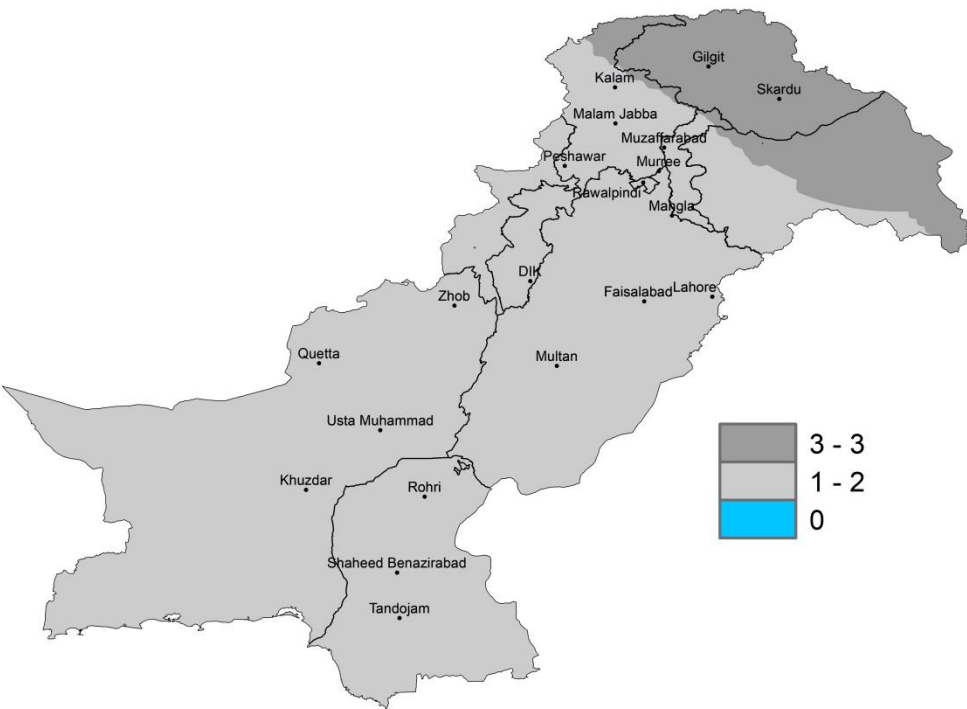
Total Growing Degree Days accumulated during the
Previous week (7th – 13th October, 2019)



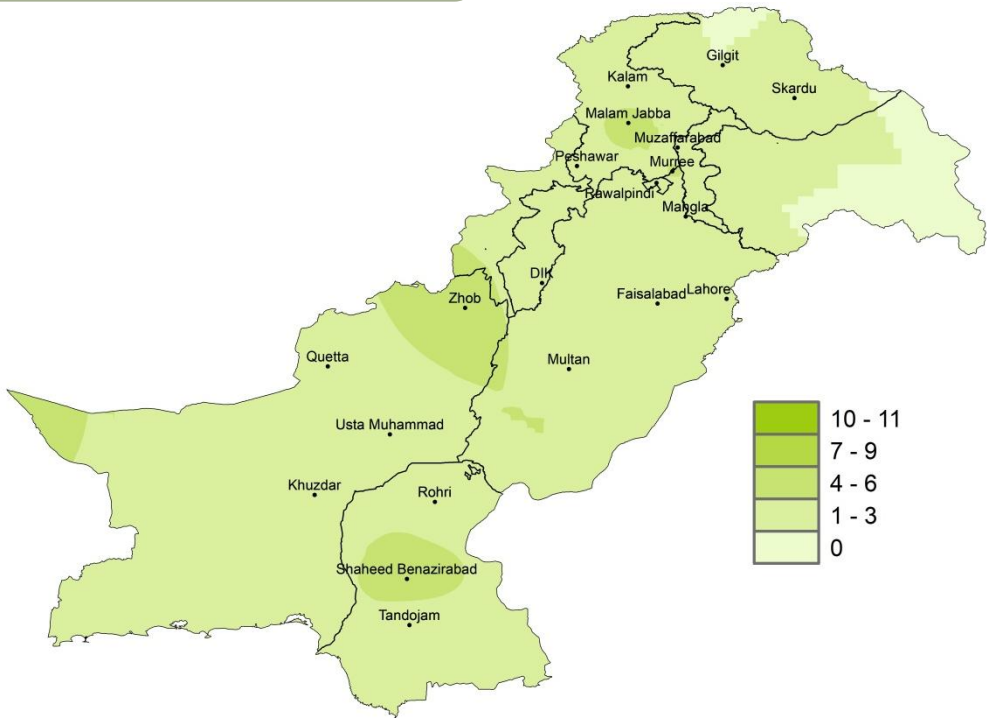
Mean Cloudiness (Oktas) at 0800PST during the Previous week (7th – 13th October, 2019)



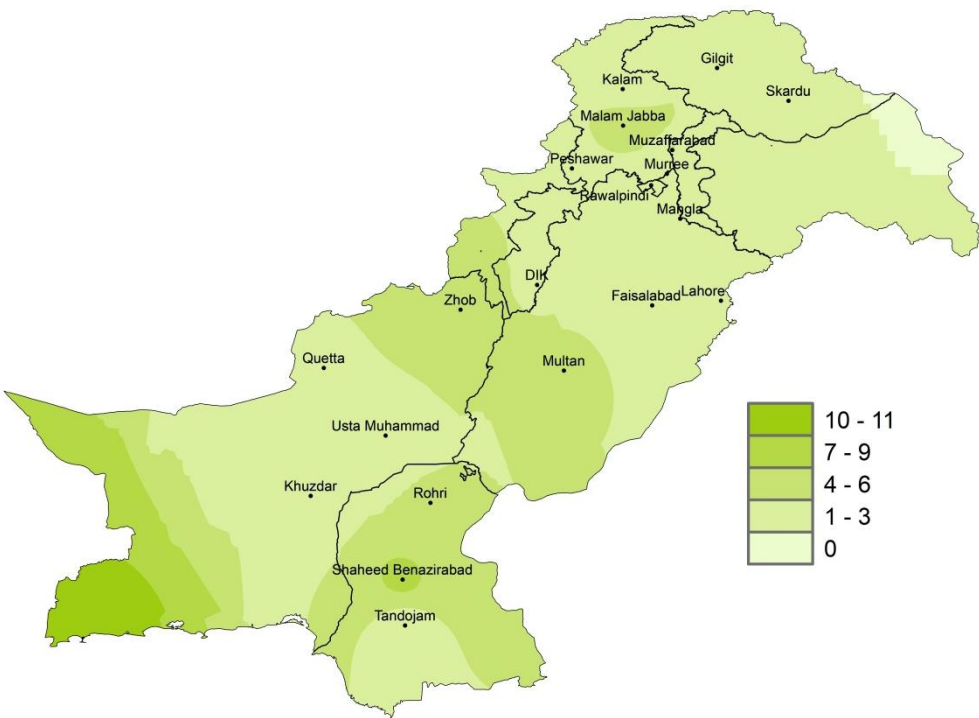
Mean Cloudiness (Oktas) at 1700PST during the Previous week (7th – 13th October, 2019)



Mean Wind Speed (Knots) at 0800PST during the Previous week (7th – 13th October, 2019)



Mean Wind Speed (Knots) at 1700PST during the Previous week (7th – 13th October, 2019)



Weekly Weather Advisory for Farmers (14th to 20th October, 2019)

Continental air is prevailing over most parts of the country.

MONDAY**14-10-2019**

Mainly dry weather is expected in most parts of the country, while cold and dry in northern areas.

TUESDAY**15-10-2019**

Mainly dry weather is expected in most parts of the country, while cold and dry in northern areas.

WEDNESDAY**16-10-2019**

Mainly dry weather is expected in most parts of the country, while cold and dry in northern areas. However, rain/thunderstorm is expected at isolated places in Malakand, Swat, Kalam and Kashmir.

THURSDAY**17-10-2019**

Mainly dry weather is expected in most parts of the country, while cold in northern areas. However, rain/thunderstorm is expected at few places in districts of Upper Khyber Pakhtunkhwa (Malakand, Dir, Chitral, Swat) and Gilgit Baltistan.

FRIDAY**18-10-2019**

Rain/thunderstorm is expected at scattered places in districts of Khyber Pakhtunkhwa (Dir, Swat, Chitral, Abbottabad, Haripur, Mansehra, Peshawar, Swabi, Mardan, Kohat), while at few districts of upper Punjab (Sargodha, Rawalpindi, Gujranwala, Lahore, Faisalabad), Islamabad, Kashmir and Gilgit Baltistan. Dry weather is expected elsewhere in the country, while cold in northern areas.

SATURDAY**19-10-2019**

Rain/thunderstorm is expected at few places in districts of Upper Khyber Pakhtunkhwa (Chitral,

Dir, Malakand, Swat), Gilgit Baltistan and Kashmir. Dry weather is expected elsewhere in the country, while cold in northern areas.

SUNDAY**20-10-2019**

Rain/thunderstorm is expected at few places in districts of Upper Khyber Pakhtunkhwa (Chitral, Dir, Malakand, Swat), Gilgit Baltistan and Kashmir. Dry weather is expected elsewhere in the country, while cold in northern areas.

ADVISORY FOR FARMERS

During the last week, light rainfall occurred at few places in Punjab, Baluchistan and GB; while dry weather prevailed over Sindh and KP. 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 (7th to 13th October, 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 | 35.1 | 36.0 | 154.8 | 59 | 0.00 | 0.0 | 0.0 | 0.3 | 2.3 |
| Faisalabad | 34.1 | 36.0 | 165.5 | 60 | 0.00 | 0.0 | 1.4 | 0.5 | 0.3 |
| Gawadar | 33.7 | 34.0 | 143.8 | 73 | 0.00 | 1.3 | 2.0 | 0.0 | 11.1 |
| Gilgit | 27.5 | 30.0 | 88.3 | 55 | 0.00 | 2.7 | 3.4 | 0.0 | 0.0 |
| Kalam | 21.6 | 23.0 | 115.8 | 65 | 0.00 | 1.0 | 2.3 | 0.0 | 1.4 |
| Khuzdar | 29.6 | 31.0 | 115.8 | 33 | 2.00 | 1.1 | 0.7 | 0.0 | 0.0 |
| Lahore | 32.4 | 33.0 | 153.5 | 62 | 0.00 | 0.7 | 2.0 | 0.0 | 1.1 |
| Malam Jabba | 19.1 | 20.0 | 95.8 | 62 | 0.00 | 0.9 | 2.0 | 4.0 | 4.6 |
| Mangla | 31.5 | 32.5 | 141.4 | 66 | 0.00 | 1.1 | 0.7 | 0.0 | 2.0 |
| Multan (PBO) | 33.6 | 35.7 | 159.2 | 56 | 0.00 | 0.0 | 0.6 | 2.6 | 4.0 |
| Murree | 20.3 | 21.6 | 106.4 | 63 | 0.00 | 1.1 | 1.6 | 3.1 | 0.6 |
| Muzaffarabad | 31.1 | 32.6 | 124.6 | 65 | 0.00 | 1.0 | 1.3 | 1.7 | 3.1 |
| Nawabshah | 38.6 | 40.5 | 176.8 | 61 | 0.00 | 0.0 | 0.4 | 0.3 | 1.4 |
| Peshawar | 32.9 | 34.2 | 139.9 | 26 | 0.00 | 1.3 | 1.4 | 2.1 | 2.6 |
| Quetta | 25.9 | 27.0 | 118.1 | 71 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rawalpindi | 30.0 | 31.0 | 147.5 | 56 | 0.00 | 0.4 | 0.0 | 1.7 | 3.1 |
| Rohri | 35.8 | 37.5 | 215.5 | 58 | 0.00 | 0.3 | 0.9 | 4.3 | 6.9 |
| Skardu | 19.5 | 22.4 | 135.7 | 62 | 1.00 | 2.7 | 3.3 | 0.0 | 0.0 |
| Tandojam | 37.0 | 38.5 | 171.3 | 66 | 0.00 | 0.0 | 0.0 | 0.8 | 1.4 |
| Usta. M | 32.6 | 33.0 | 133.3 | 77 | 0.00 | 1.0 | 1.0 | 0.0 | 1.4 |
| Zhob | 29.6 | 31.5 | 126.0 | 40 | 0.00 | 0.3 | 1.3 | 4.3 | 5.9 |

*** 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 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)