

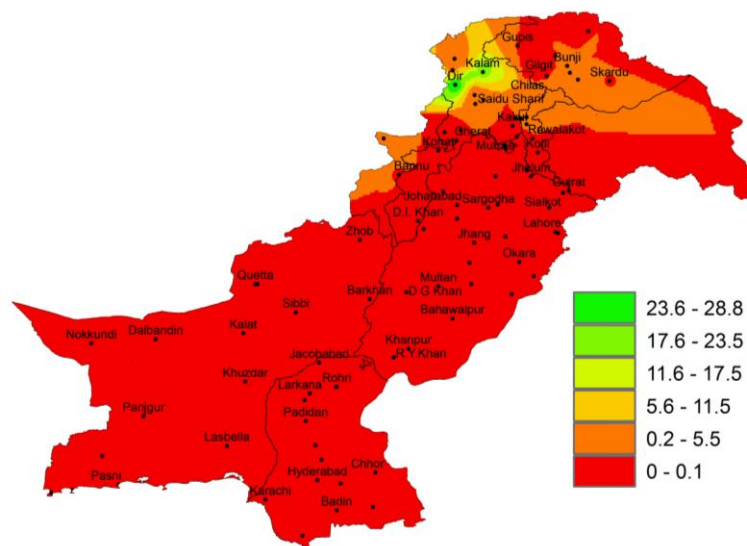
Weekly Weather and Crop Bulletin for Pakistan

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PAKISTAN METEOROLOGICAL
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**Rainfall Distribution (mm) during the previous
Week (2nd October to 8th October, 2017)**



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Highlights of Past Weather (2nd October to 8th October, 2017)

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

Province wise distribution of rainfall reported as follows:

- Dry weather reported from Punjab, Sindh, Baluchistan and Kashmir during this week.
- Light rainfall reported from KP at scattered places in Malakand division while at isolated rainfall in Hazara division.
- Light rainfall occurred at isolated places in Gilgit-Baltistan and FATA.

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 (2nd October to 8th October, 2017)

Punjab

Dry weather reported from Punjab during the week. Weekly maximum and minimum temperatures recorded as 36.4°C & 21.2°C respectively. For the recent week on average 166.6 growing degree days were accumulated by the end of the last week. Average relative humidity recorded as 58% and wind speed in the morning/evening recorded as 1.0/2.3 knots. During the previous week highest maximum temperature was recorded as 41.0°C at Noorpurthal.

Balochistan

Dry weather reported from Balochistan province during the week. Weekly maximum and minimum temperatures recorded as 34.4°C & 18.7°C respectively. For the recent week on average 146.4 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 42% and wind speed in the morning/evening recorded as 1.3/5.0 knots. During the previous week highest maximum temperature was recorded as 43.0°C at Lasbella.

Khyber Pakhtunkhwa

Light rainfall reported from scattered places of Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 31.5°C & 16.0°C respectively. For the recent week on average 131.3 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 55% and wind speed in the morning/evening recorded as 0.6/2.2 knots. During the previous week the highest amount of rainfall was recorded as 29.0 mm at Dir & highest maximum temperature was recorded as 39.0°C at D.I.Khan.

Gilgit-Baltistan and Azad Jammu & Kashmir

Dry weather reported from Kashmir while light rainfall occurred at isolated places in Gilgit-Baltistan during the week. Weekly maximum and minimum temperatures recorded as 28.3°C & 13.2°C respectively. For the recent week on average 105.5 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 47% and wind speed in the morning/evening recorded as 0.8/2.5 knots. During the previous week the highest amount of rainfall was recorded as 1.61 mm at Bagrote & highest maximum temperature was recorded as 35.5°C at Chilas.

Sindh

Dry weather reported from Sindh province during the week. Weekly maximum and minimum temperatures recorded as 38.1°C & 23.0°C respectively. For the recent week, on average 175.1 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 60% and wind speed in the morning/evening recorded as 1.3/3.0 knots. Highest maximum temperature was recorded as 42.5°C at Chhor.

Past Weather for Major Agricultural Plains**(2nd October to 8th October, 2017)****Rawalpindi (Potohar region)**

Dry weather reported from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 0.3/0.6 Oktas while, average relative humidity observed as 61%. Mean day time temperature recorded as 34.6°C & for the recent week 154.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.9 knots.

Faisalabad (Central Punjab)

Dry weather reported from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 0.0/0.0 Oktas while, average relative humidity observed as 54%. Mean day time temperature recorded as 37.7°C & for the recent week 167.1 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.8/1.2 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 77%. Mean day time temperature recorded as 37.9°C & for the recent week 169.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.1/1.1 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 40%. Mean day time temperature recorded as 36.5°C & for the recent week 174.9 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.3/2.0 knots.

Quetta (Northern Baluchistan)

Dry weather reported from Quetta during the week; however, cloudiness in the morning/evening recorded as 0.0/0.4 Oktas while, average relative humidity observed as 23%. Mean day time temperature recorded as 29.4°C & for the recent

week 103.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.2/3.6 knots.

Past Weather for Sub-Regional Agricultural Plains (2nd October to 8th October, 2017)**Multan**

Dry weather reported from Multan during the week; however, cloudiness in the morning/evening recorded as 0.0/0.0 Oktas while, average relative humidity observed as 44%. Mean day time temperature recorded as 37.1°C & for the recent week 177.9 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 5.2/8.4 knots.

Lahore

Dry weather reported from Lahore during the week; however, cloudiness in the morning/evening recorded as 0.0/0.0 Oktas while, average relative humidity observed as 54%. Mean day time temperature recorded as 36.0°C & for the recent week 172.1 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.8/1.6 knots.

Zhob

Dry weather reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 0.0/0.8 Oktas while, average relative humidity observed as 24%. Mean day time temperature recorded as 32.6°C & for the recent week 137.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.0/7.4 knots.

Murree

Dry weather reported from Murree during the week; however, cloudiness in the morning/evening recorded as 0.0/0.4 Oktas while, average relative humidity observed as 64%. Mean day time temperature recorded as 24.1°C & for the recent week 100.2 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.8/0.4 knots.

D.I. Khan

Dry weather reported from D.I.Khan during the week; however, cloudiness in the morning/evening recorded as 0.0/0.0 Oktas while, average relative humidity observed as 65%. Mean day time temperature recorded as 37.1°C & for the recent week 171.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.8/0.4 knots.

Peshawar

Dry weather reported from Peshawar during the week; however, cloudiness in the morning/evening recorded as 0.4/1.4 Oktas while, average relative humidity observed as 64%. Mean day time temperature recorded as 34.9°C & for the recent week 158.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/1.2 knots.

Kalam

Rainfall reported as 20.0 mm from Kalam during the week; however, cloudiness in the morning/evening recorded as 1.4/2.4 Oktas while, average relative humidity observed as 60%. Mean day time temperature recorded as 22.7°C & for the recent week 67.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/1.2 knots.

Gilgit

Rainfall reported as trace (0.03 mm) from Gilgit during the week; However, cloudiness in the morning/evening recorded as 2.8/4.8 Oktas while, average relative humidity observed as 49%. Mean day time temperature recorded as 28.6°C & for the recent week 102.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.6/4.4 knots.

Skardu

Dry weather reported from Skardu during the week; However, cloudiness in the morning/evening recorded as 1.8/2.8 Oktas while, average relative humidity observed as 47%. Mean day time temperature recorded as 24.1°C & for the recent week 73.9 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/3.2 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, *maturity*

Lower Sindh (Tandojam)

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

Cotton (HH-906): Good condition, *picking in progress*.

Northern Baluchistan (Quetta)

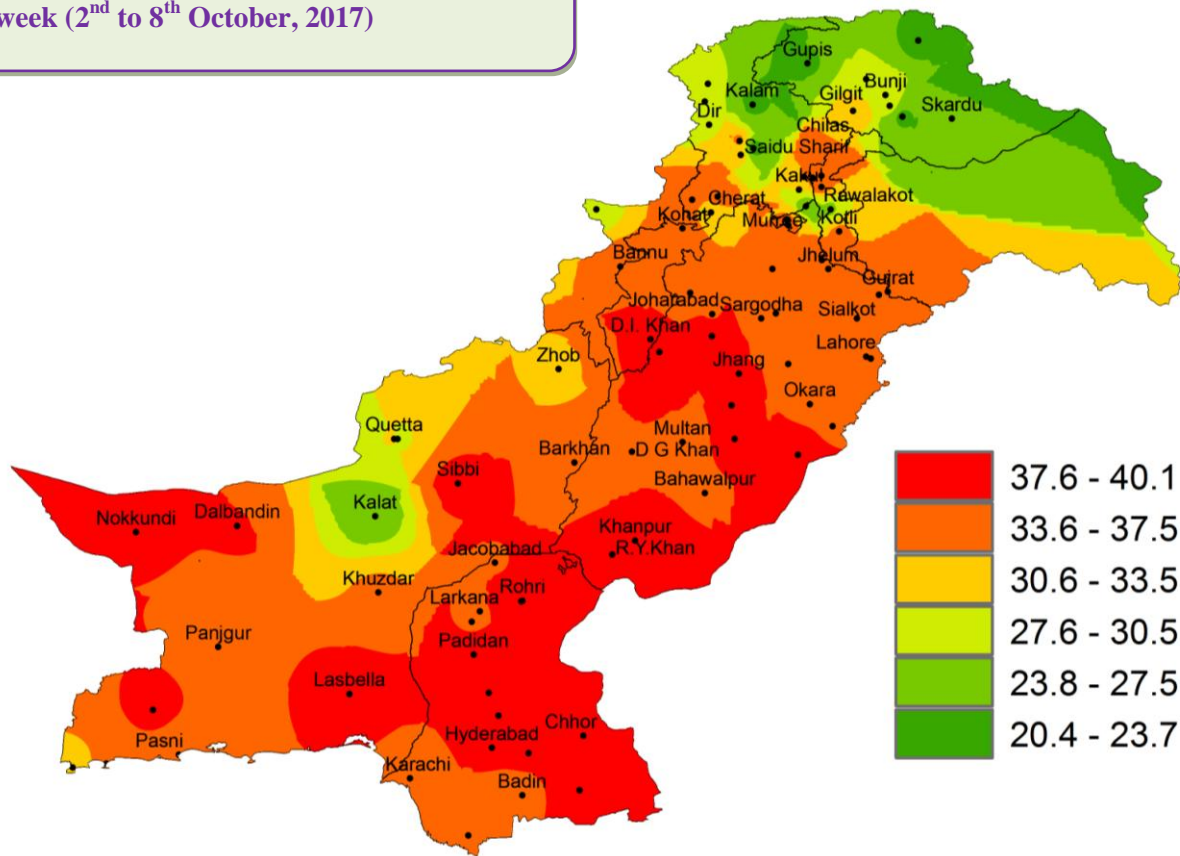
There is presently no crop grown in the fields of RAMC Quetta.

Eastern Baluchistan (Usta Muhammad)

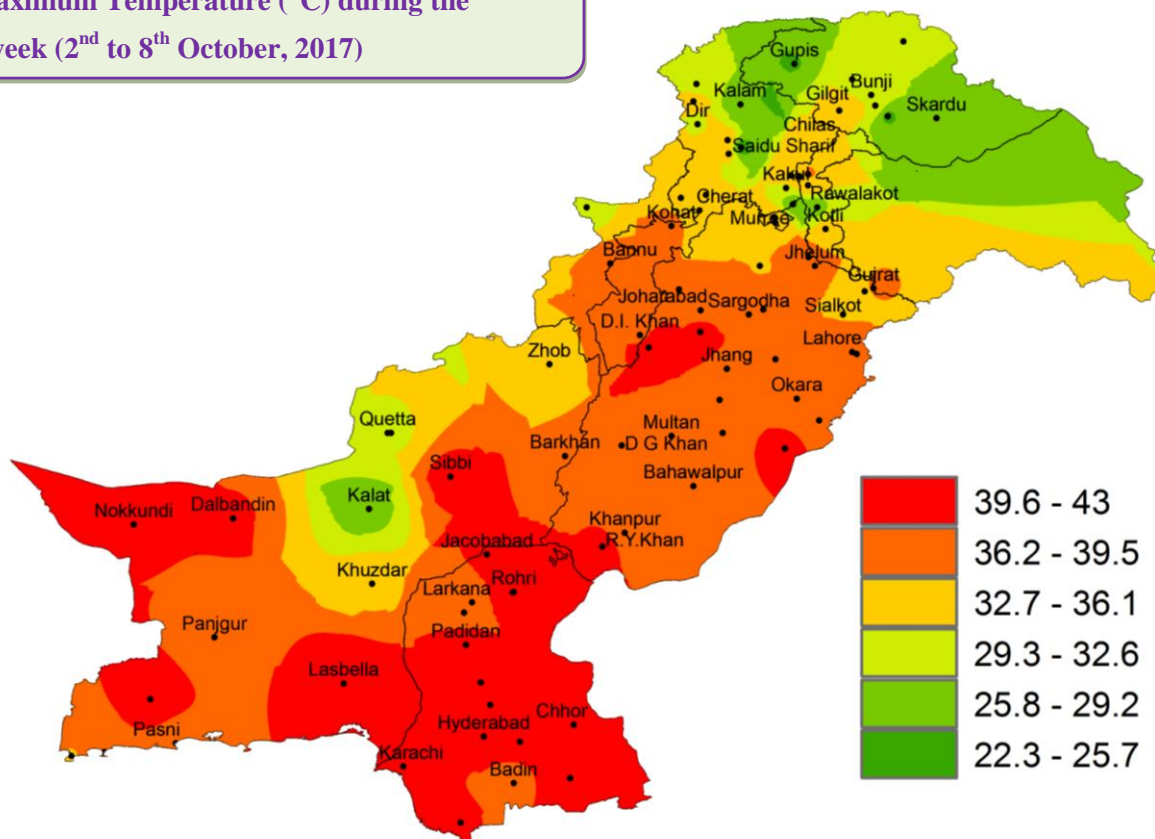
There is presently one crop (irrigated conditions) grown in the fields of RAMC Usta Muhammad.

Rice: Good condition, *Flowering Stage*.

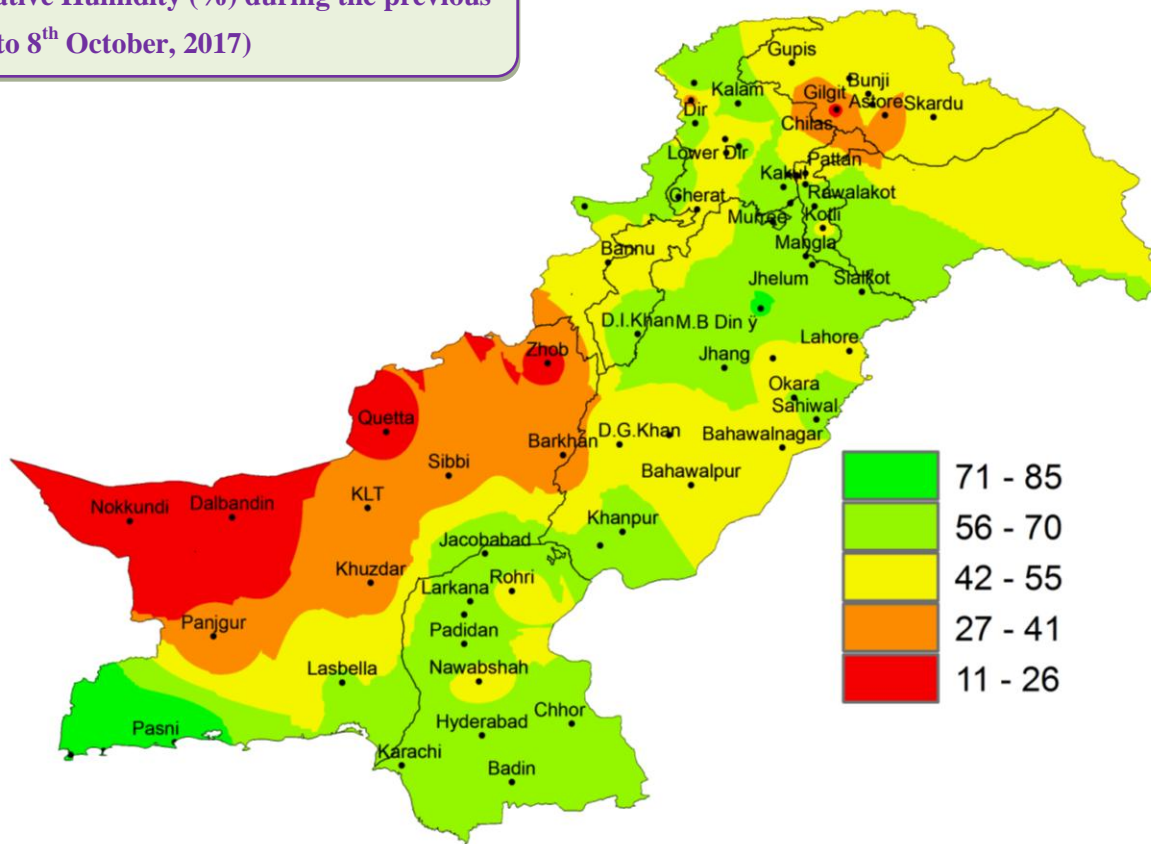
**Mean Maximum Temperature (°C) during the
Previous week (2nd to 8th October, 2017)**



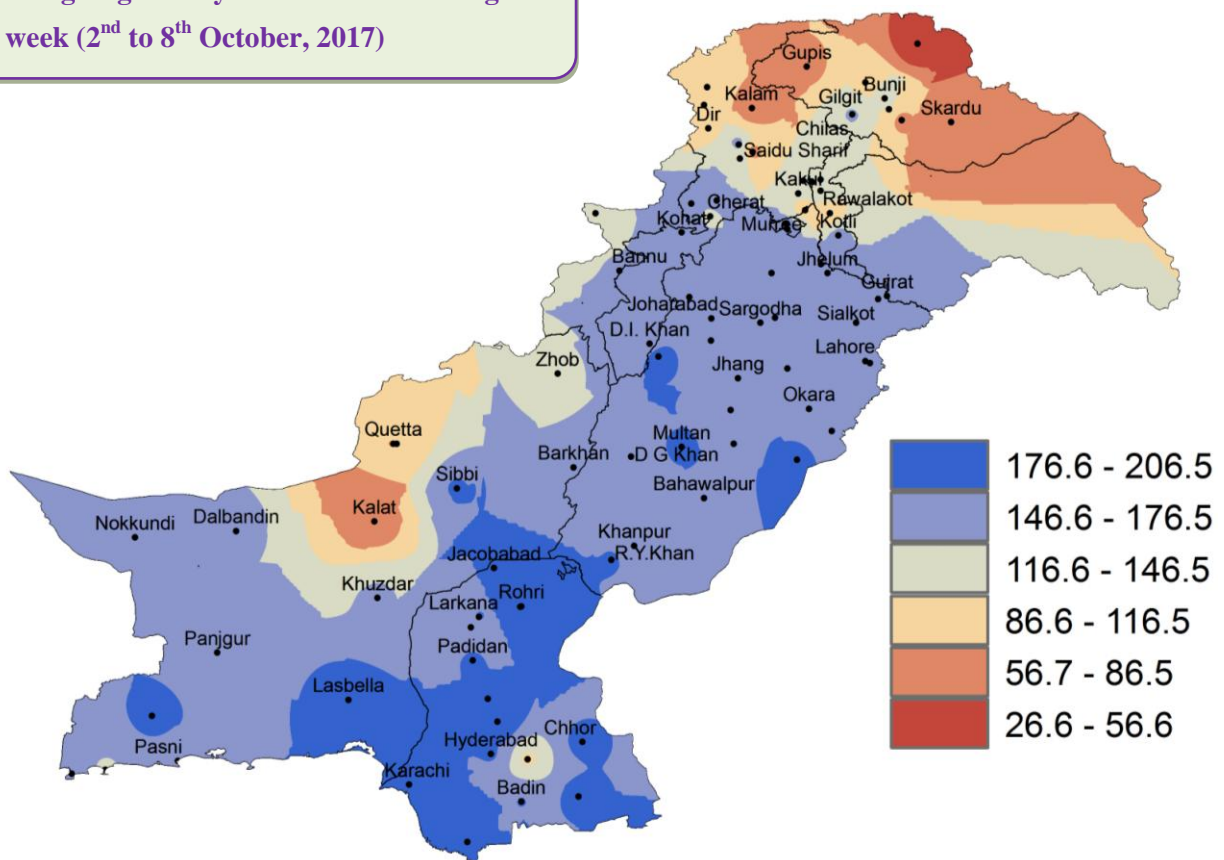
**Highest maximum Temperature (°C) during the
Previous week (2nd to 8th October, 2017)**



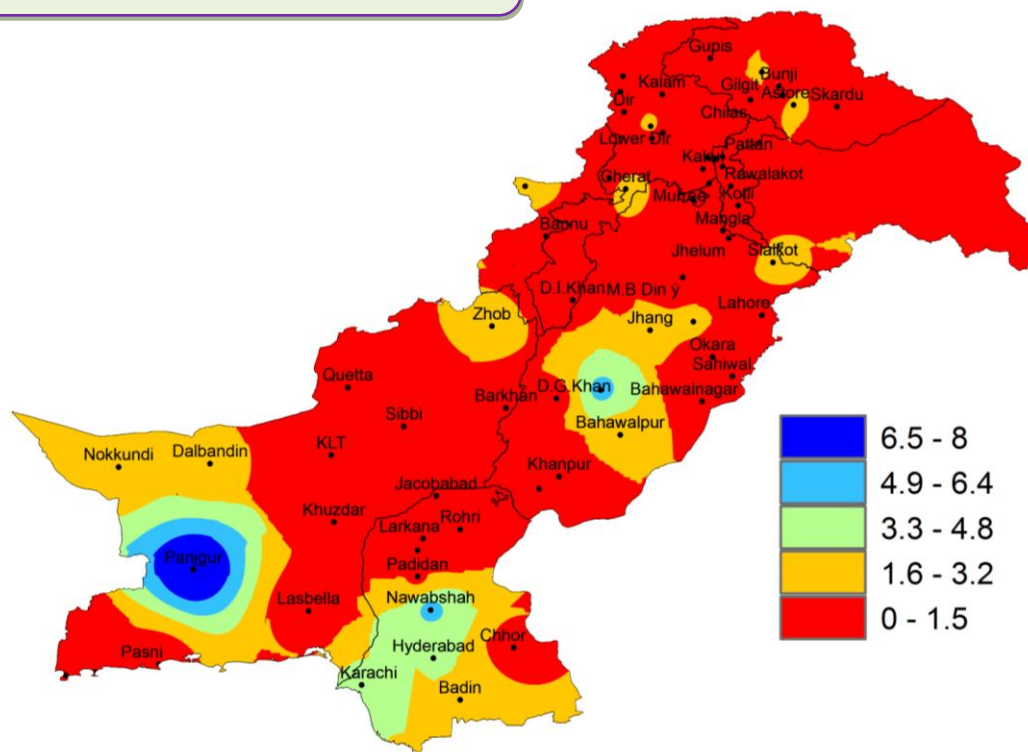
Mean Relative Humidity (%) during the previous week (2nd to 8th October, 2017)



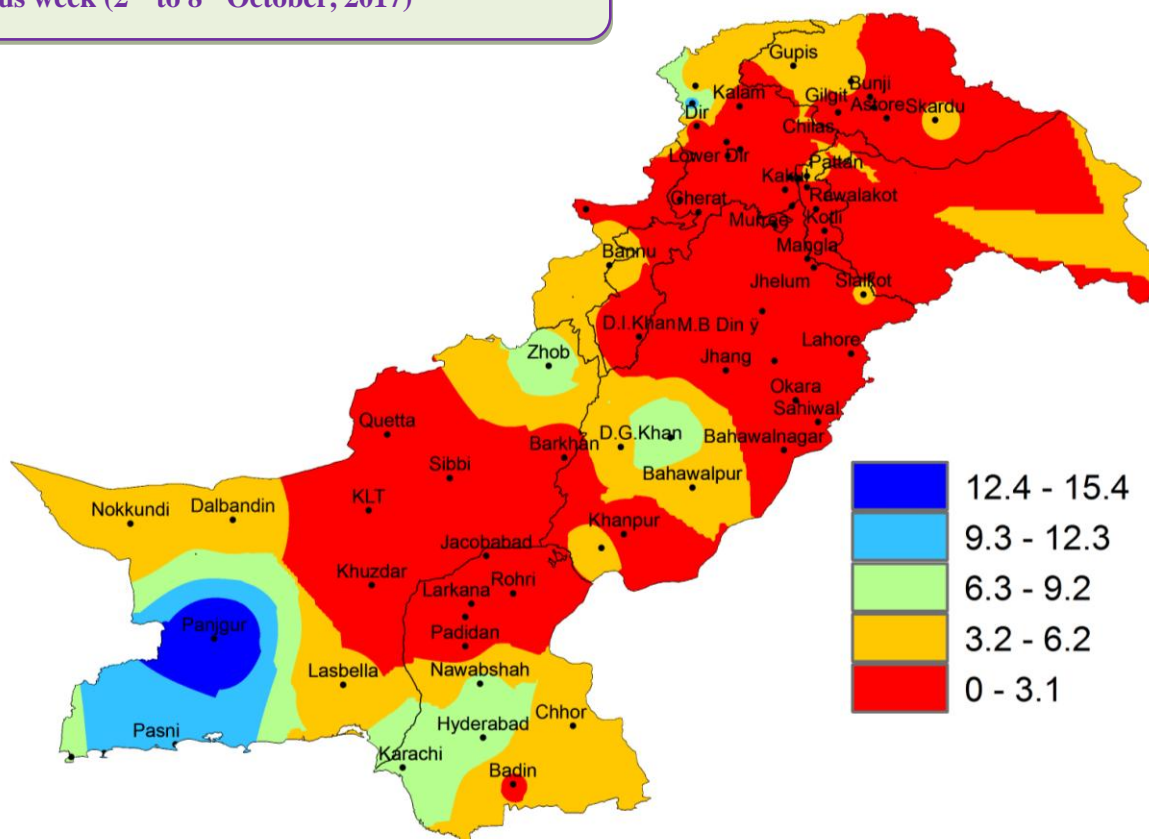
Total Growing Degree Days accumulated during the previous week (2nd to 8th October, 2017)



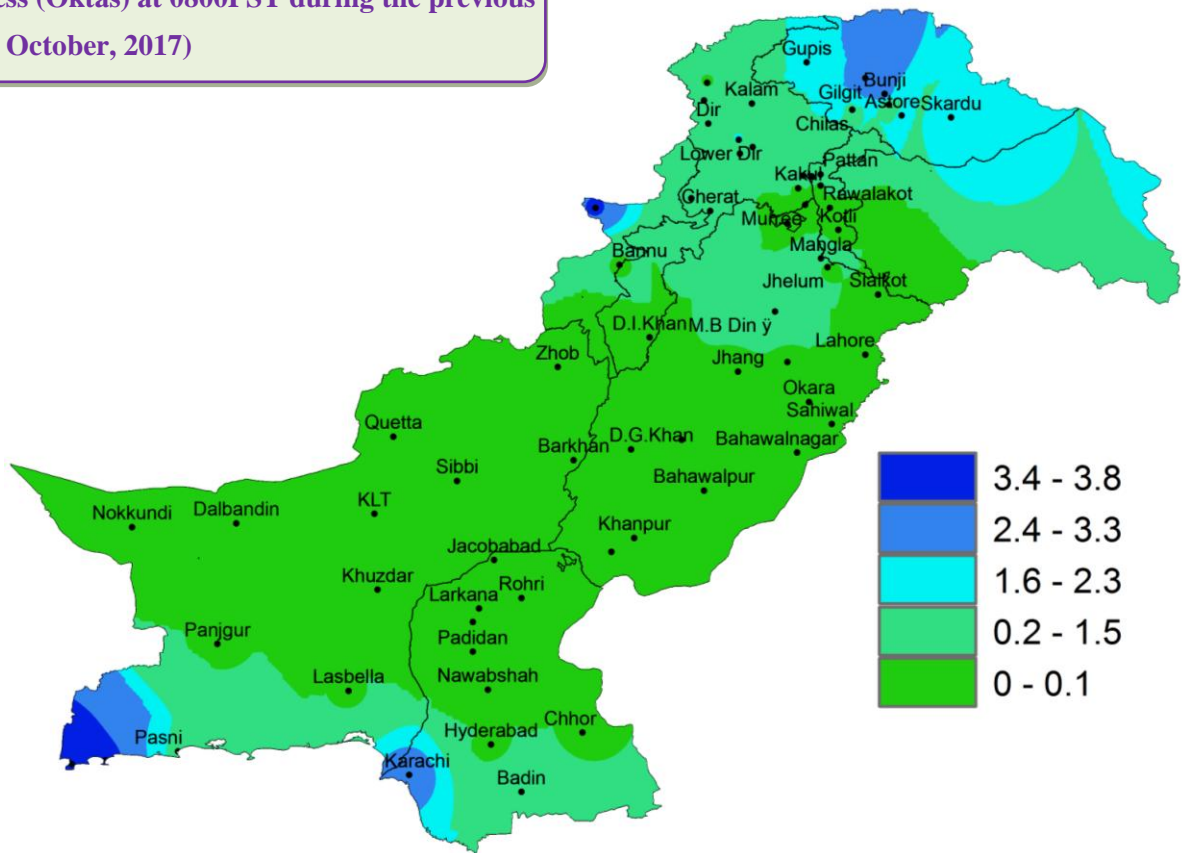
Mean Wind Speed (Knots) at 0800PST during the previous week (2nd to 8th October, 2017)



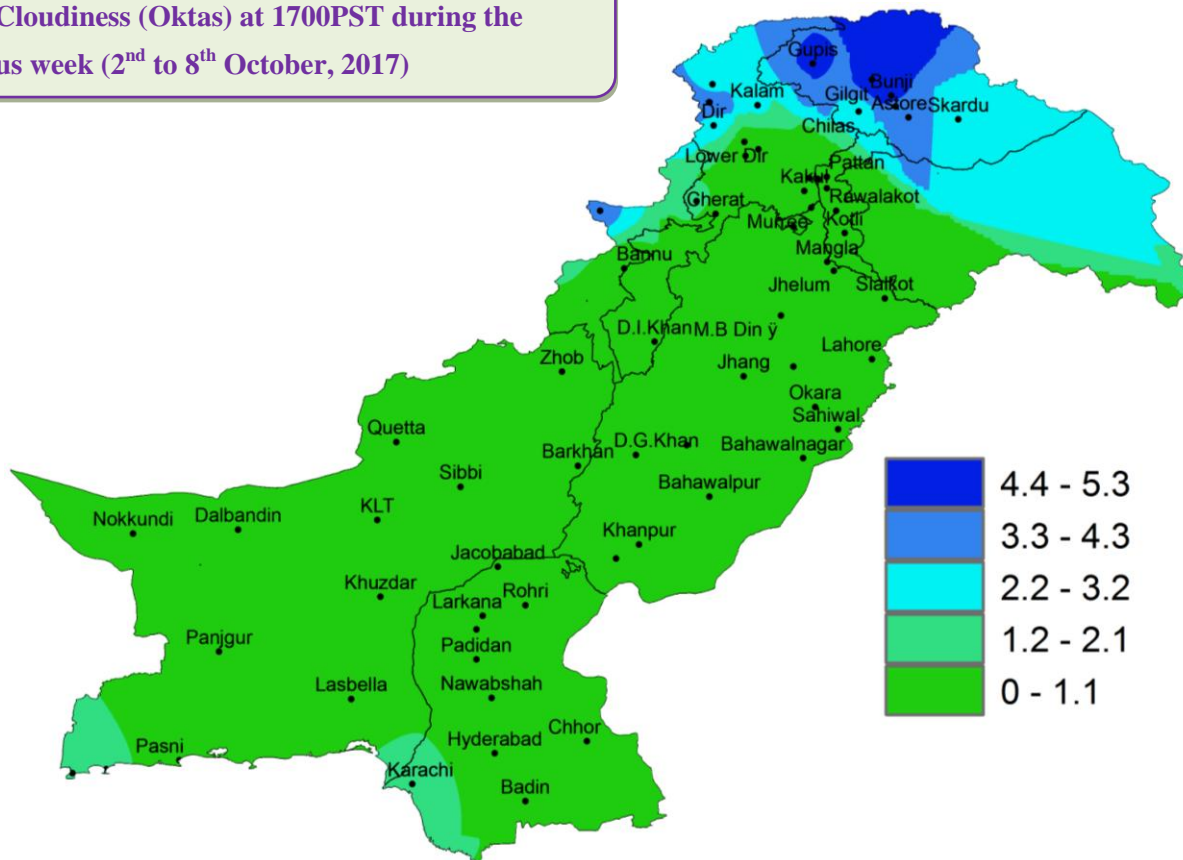
Mean Wind Speed (Knots) at 1700PST during the previous week (2nd to 8th October, 2017)



Mean Cloudiness (Oktas) at 0800PST during the previous week (2nd to 8th October, 2017)



Mean Cloudiness (Oktas) at 1700PST during the previous week (2nd to 8th October, 2017)



Weekly Weather Advisory for Farmers
(9th to 15th October, 2017)

Continental air is prevailing over most part of the country. A shallow westerly wave persists over extreme north of Pakistan.

MONDAY
09-10-2017

Mainly hot and dry weather is expected in most parts of the country. However, rain-thunderstorm is expected at isolated places in Malakand division & Gilgit-Baltistan. Day temperatures are likely to increase along Sindh-Makran coast including Karachi.

TUESDAY
10-10-2017

Mainly hot and dry weather is expected in most parts of the country. Day temperatures are likely to increase along Sindh-Makran coast including Karachi.

WEDNESDAY
11-10-2017

Mainly hot and dry weather is expected in most parts of the country. Day temperatures are likely to increase along Sindh-Makran coast including Karachi.

THURSDAY
12-10-2017

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

FRIDAY
13-10-2017

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

SATURDAY
14-10-2017

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

SUNDAY
15-10-2017

Mainly hot and dry weather is expected in most parts of the country. However, rain-thunderstorm is expected at scattered places in Malakand, Hazara divisions, Kashmir & Gilgit-Baltistan.

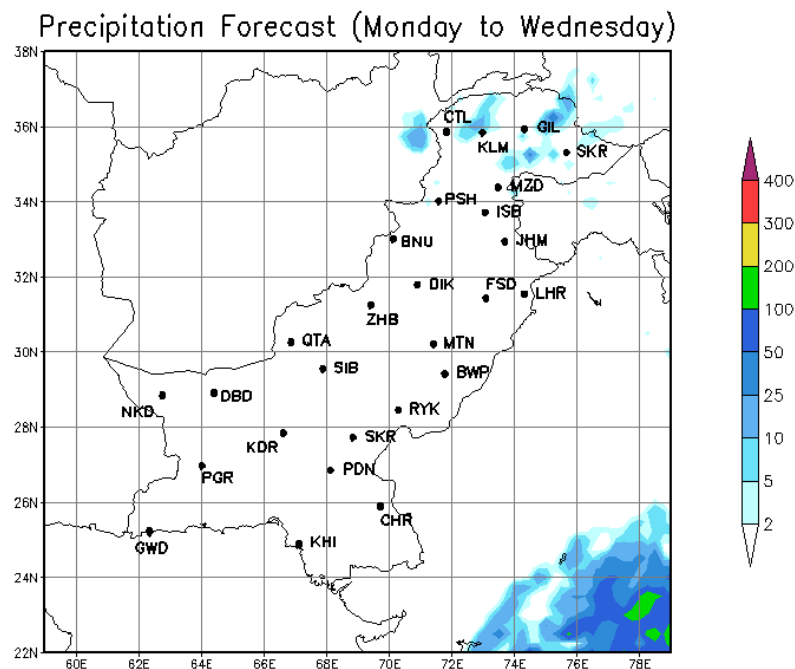
ADVISES FOR FARMERS

During the last week, mainly dry weather reported from most parts of the agricultural plains of the country. In the coming days as well, hot and dry weather is expected in most parts of the country. Keeping in view the expected weather conditions following advises are suggested for farming community.

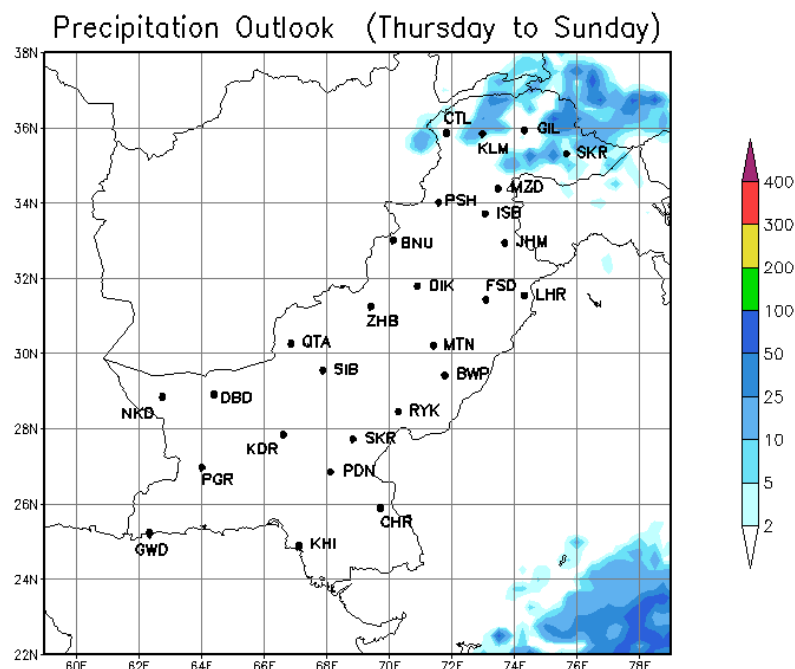
- Pest/viral attacks and more weeds growth are expected in fields in the particular areas, during this season.
- Farmers of irrigated areas may irrigate the standing crops as per requirement in accordance with the expected weather and crop conditions.

Weather Outlook from 9th to 15th October, 2017

The outlook for the period 9th to 11th October, 2017 shows that dry weather is expected at most parts of the country however light rainfall is expected at isolated places in upper KP and Gilgit-Baltistan.



The outlook for the period 12th to 15th October, 2017 shows that dry weather is expected at most parts of the country however rain fall is expected at a few places in upper KP and Gilgit-Baltistan.



National Weather Data of Selected Cities (2nd to 8th October, 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	22.1	24.5	74.5	35	0.00	1.6	3.6	2.4	2.8
Badin	36.0	38.0	177.3	65	0.00	0.8	0.8	2.8	2.8
Bahawalnagar	38.6	40.5	181.0	47	0.00	0.0	0.0	0.0	1.6
Bahawalpur	37.5	38.0	174.6	51	0.00	0.0	0.0	2.4	3.2
Balakot	33.7	34.5	136.0	57	0.00	0.8	0.6	0.0	0.0
Bannu	36.2	38.2	147.9	47	0.00	0.0	0.0	0.0	4.0
Barkhan	34.4	36.5	147.0	31	0.00	0.0	0.0	0.8	0.8
Bunji	29.0	32.2	127.1	42	0.00	3.0	5.4	1.6	0.8
Cherat	31.1	33.0	140.8	43	0.01	0.6	0.6	2.4	2.0
Chhor	39.8	42.5	182.6	59	0.00	0.0	0.6	0.8	4.8
Chilas	32.6	35.5	148.5	24	0.00	1.4	2.4	1.2	2.4
Chitral	28.3	31.0	103.7	66	0.03	0.0	2.6	0.0	5.2
D.G.Khan	37.4	39.2	169.4	55	0.00	0.0	0.0	0.8	6.0
D.I.Khan	37.7	39.0	171.3	65	0.00	0.0	0.0	0.8	0.4
Dalbandin	37.6	40.0	153.0	14	0.00	0.0	0.0	2.0	5.0
Dir	29.2	32.0	101.3	64	29.00	1.4	2.8	0.0	2.0
Drosh	29.2	34.0	112.6	35	4.20	0.8	4.4	0.0	10.4
Faisalabad	37.7	39.0	167.1	54	0.00	0.0	0.0	0.8	1.2
Gari dopatta	34.3	35.3	143.2	59	0.00	0.0	0.8	0.0	1.2
Gawader	33.9	37.0	143.3	79	0.00	3.4	1.2	0.0	10.8
Gilgit	28.6	31.0	102.8	49	0.03	2.8	4.8	1.6	4.4
Gupis	22.9	25.5	75.0	43	0.01	1.6	4.4	0.8	3.6

Hyderabad	37.7	40.5	178.0	59	0.00	0.0	0.0	3.2	7.6
Islamabad	34.0	34.7	148.7	62	0.00	0.0	1.0	0.0	0.0
Jacobabad	37.1	40.0	178.8	66	0.00	0.0	0.0	0.0	0.0
Jhang	37.7	39.0	171.2	60	0.00	0.0	0.0	2.0	1.6
Jhelum	36.1	36.5	166.2	68	0.00	0.0	0.4	0.0	1.2
Jiwani	32.4	36.0	165.2	75	0.00	3.8	1.2	0.8	7.6
Kakul	30.6	32.0	121.3	60	0.00	0.0	1.0	0.0	0.0
Kalam	22.7	26.0	67.3	60	20.00	1.4	2.4	0.0	1.2
Kalat	24.6	27.0	64.0	32	0.00	0.0	0.0	0.0	0.0
Karachi	36.1	40.5	178.3	65	0.00	2.8	2.0	3.6	8.4
Khanpur	38.0	38.5	170.6	58	0.00	0.0	0.0	0.0	1.2
Khuzdar	34.4	35.0	151.3	35	0.00	0.0	0.0	0.8	1.6
Kotli	34.4	34.8	155.2	53	0.00	0.0	0.0	1.2	1.6
Lahore	36.0	36.5	172.1	54	0.00	0.0	0.0	0.8	1.6
Larkana	37.4	38.5	178.9	58	0.00	0.0	0.0	1.5	0.8
Lasbella	39.4	43.0	185.7	56	0.00	0.0	0.0	0.0	3.6
Lower Dir	34.8	36.5	155.8	41	2.50	1.6	1.0	2.4	2.0
M.B Din	35.9	36.5	166.6	71	0.00	0.6	0.0	0.0	0.0
Malam Jabba	20.1	22.0	69.8	59	3.00	1.2	0.0	0.0	0.0
Mangla	35.8	36.7	162.3	62	0.00	0.4	0.4	0.0	2.8
Mir Khani	29.4	33.0	117.6	47	5.01	0.8	3.2	0.0	2.0
Moinjodaro	37.2	38.5	149.0	62	0.00	0.0	0.0	1.2	1.6
Multan(PBO)	37.1	38.3	177.9	44	0.00	0.0	0.0	5.2	8.4
Murree	24.1	25.3	100.2	64	0.00	0.0	0.4	0.8	0.4
Muzaffarabad	34.0	35.0	140.5	52	0.00	0.0	0.4	0.4	0.8
Nawabshah	39.6	42.0	181.3	53	0.00	0.0	0.0	5.2	6.8

Nokkundi	38.0	40.5	170.5	11	0.00	0.0	0.0	2.0	3.2
Okara	37.0	38.0	169.5	55	0.00	0.0	0.0	0.0	0.8
Padidan	39.0	41.0	179.3	58	0.00	0.0	0.0	1.2	2.0
Panjgur	35.7	37.0	157.8	29	0.00	0.0	0.0	8.0	15.4
Parachinar	27.8	29.5	125.4	57	3.00	3.4	3.8	3.0	3.0
Pasni	33.6	37.5	170.0	85	0.00	1.4	0.6	0.4	9.4
Pattan	34.4	36.5	139.3	47	4.00	0.8	1.0	0.0	5.6
Peshawar	34.9	35.8	158.5	64	0.00	0.4	1.4	0.0	1.2
Quetta	29.4	31.0	103.3	23	0.00	0.0	0.4	2.2	3.6
Rahim Yar Khan	39.5	40.3	177.4	57	0.00	0.0	0.0	0.0	4.4
Rawalakot	26.8	27.2	93.5	64	0.00	0.0	0.8	0.0	1.6
Rawalpindi	34.6	36.0	154.5	61	0.00	0.3	0.6	0.0	0.9
Rohri	39.1	40.5	182.8	52	0.00	0.0	0.0	0.0	0.0
Sahiwal	37.2	38.0	164.5	57	0.00	0.0	0.0	0.0	0.0
Saidu Sharif	32.5	34.3	134.6	54	1.00	1.0	0.0	0.0	0.0
Sialkot	34.0	34.5	161.5	66	0.00	0.0	0.0	2.0	3.2
Sibbi	40.0	42.0	179.3	36	0.00	0.0	0.0	0.0	1.6
Skardu	24.1	27.8	73.9	47	0.00	1.8	2.8	0.0	3.2
Tandojam	37.9	39.5	169.5	77	0.00	0.0	0.0	1.1	1.1
Usta. M	36.5	39.8	174.9	40	0.00	0.0	0.0	0.3	2.0
Zhob	32.6	33.5	137.8	24	0.00	0.0	0.0	2.0	7.4

*** 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 2014-2012)