

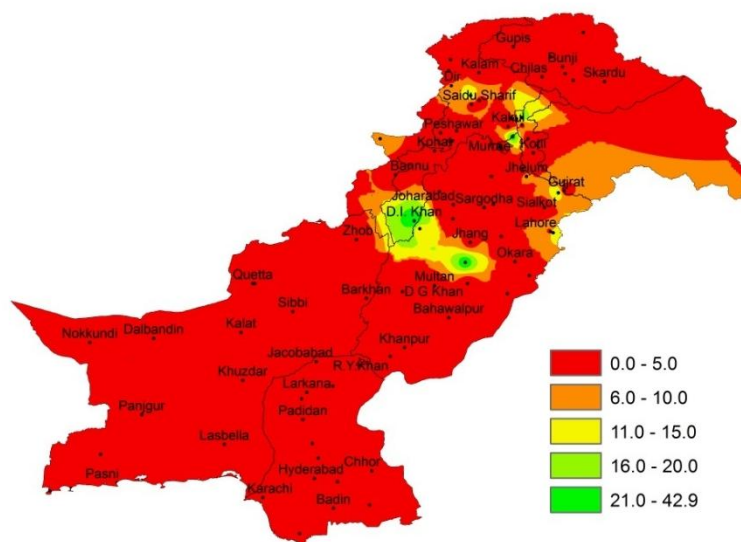
Weekly Weather and Crop Bulletin for Pakistan

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**Rainfall Distribution (mm) during the
Previous Week (from 27th Sep to 2nd Oct, 2016)**



Highlights of Past Weather (from 27th Sep to 2nd Oct, 2016)

Slightly above normal day time temperature was reported in most parts of the country during the week.

Province wise distribution of rainfall reported as follows:

- Light rainfall was reported at few places in Punjab and Gilgit Baltistan.
- Light to moderate rainfall was reported at many places in Khyber Pakhtunkhwa.
- Rainfall was reported only at single station (Mithi =0.1mm) in Sindh.
- Dry weather was reported in Balochistan.

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Editor: Asma Jawad Hashmi (Deputy Director)

Past Weather of Provinces (from 27th Sep to 2nd Oct, 2016)**Punjab**

Light rainfall reported at few places in Punjab during the week. Weekly maximum and minimum temperatures recorded as 36.6°C & 24.7°C respectively. For the present season on average 179.2 growing degree days were accumulated by the end of the last week. Average relative humidity recorded as 66% and wind speed in the morning/evening recorded as 1.1/1.9 Knots. During the previous week the highest amount of rainfall was recorded as 7.0mm at Lahore & highest maximum temperature was recorded as 41.0°C at Noorpurthal.

Sindh

Rainfall was reported only at single station (Mithi =0.1mm) in Sindh during the week. Weekly maximum and minimum temperatures recorded as 37.0°C & 24.5°C respectively. For the present season, on average 179.1 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 3.6/5.2 Knots. During the previous week the highest maximum temperature recorded as 41.5°C at Nawabshah.

Khyber Pakhtunkhwa

Light to moderate rainfall reported at many places in Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 32.6°C & 18.7°C respectively. For the present season on average 144.4 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 62% and wind speed in the morning/evening recorded as 0.5/2.8 Knots. During the previous week the highest amount of rainfall was recorded as 12.0mm at Dir & the highest maximum temperature recorded as 39.0°C at D.I.Khan.

Balochistan

Dry weather was reported in Balochistan during the week. Weekly maximum and minimum temperatures recorded as 35.9°C & 22.1°C respectively. For the present season on average 164.7 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 48% and wind speed in the morning/evening recorded as 1.3/5.0 Knots. During the previous week the highest maximum temperature was recorded as 44.5°C at Nokkundi.

Gilgit-Baltistan and Azad Jammu & Kashmir

Light rainfall reported at few places in Gilgit-Baltistan & Kashmir regions during the week. Weekly maximum and minimum temperatures recorded as 31.1°C & 14.9°C respectively. For the present season on average 128.7 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 52% and wind speed in the morning/evening recorded as 0.5/1.5 Knots. During the previous week the highest amount of rainfall was recorded as 0.8mm at Bagrote & highest maximum temperature recorded as 37.5°C at Chilas.

**Past Weather for Major Agricultural Plains
(from 27th Sep to 2nd Oct, 2016)****Rawalpindi (Potohar region)**

Dry weather was reported during the week; cloudiness in the morning/evening recorded as 3.0/1.4 Oktas while, average relative humidity observed as 67%. Mean day time temperature recorded as 34.6°C & for the present season 168.9 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.9/0.6Knots.

Faisalabad (Central Punjab)

Dry weather was reported during the week; however cloudiness in the morning/evening recorded as 0.0/0.4Oktas while, average relative humidity observed as 61%. Mean day time temperature recorded as 37.6°C & for the present season 185.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.2/1.3 Knots.

Tandojam (Lower Sindh)

Dry weather was reported during the week; however cloudiness in the morning/evening recorded as 0.6/0.7Oktas while, average relative humidity observed as 68%. Mean day time temperature recorded as 37.1°C & for the present season 174.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.3/3.2Knots.

Quetta (Northern Baluchistan)

Dry weather was reported during the week; however cloudiness in the morning/evening recorded as 0.0/0.0Oktas while, average relative humidity observed as 25%. Mean day time temperature recorded as 31.5°C& for the present season 131.2 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.3/2.9Knots.

Usta Muhammad (Eastern Balochistan)

Dry weather was reported during the week; however cloudiness in the morning/evening recorded 0.0/0.0Oktas while, average relative humidity observed as 70%. Mean day time temperature recorded as 35.4°C & for the present season 174.4 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/2.0Knots.

**Past Weather for Sub-Regional Agricultural
Plains (from 27th Sep to 2nd Oct, 2016)****Multan**

Dry weather was reported during the week; however cloudiness in the morning/evening recorded as 0.0/0.0Oktas while, average relative humidity observed as 54%. Mean day time temperature recorded as 38.4°C & for the present season 196.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.7/3.1 Knots.

Lahore

Rainfall reported as 0.6mm during the week; cloudiness in the morning/evening recorded as 0.8/3.9Oktas while, average relative humidity observed as 65%. Mean day time temperature recorded as 35.3°C & for the present season 178.1 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.7/2.0 Knots.

Zhob

Dry weather was reported during the week; however cloudiness in the morning/evening recorded as 0.0/0.0Oktas while, average relative humidity observed as 37%. Mean day time temperature recorded as 35.0°C & for the present season 154.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 4.2/4.3 Knots.

D.I. Khan

Dry weather was reported during the week; cloudiness in the morning/evening recorded as 0.0/0.0Oktas while, average relative humidity observed as 68%. Mean day time temperature recorded as 37.6C & for the present season 182.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.6Knots.

Peshawar

Dry weather was reported during the week; cloudiness in the morning/evening recorded as 1.5/2.6Oktas while, average relative humidity observed as 69%. Mean day time temperature recorded as 35.6C & for the present season 176.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.3/2.3Knots.

Murree

Rainfall reported as 3.0mm during the week, cloudiness in the morning/evening recorded as 2.7/5.0Oktas while, average relative humidity observed as 83%. Mean day time temperature recorded as 21.5°C & for the present season 89.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.3/0.6Knots.

Kalam

Dry weather was reported during the week, cloudiness in the morning/evening recorded as 2.7/0.0Oktas while, average relative humidity observed as 64%. Mean day time temperature recorded as 24.9°C & for the present season 85.2 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/2.6Knots.

Gilgit

Dry weather was reported during the week, cloudiness in the morning/evening recorded as 0.3/3.3Oktas while, average relative humidity observed as 56%. Mean day time temperature recorded as 33.2°C & for the present season 120.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.0 Knots.

Skardu

Dry weather was reported during the week; cloudiness in the morning/evening recorded as 0.2/0.9Oktas while, average relative humidity observed as 43%. Mean day time temperature recorded as 28.5°C & for the present season 90.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.0Knots.

**Crop Situation for Major Agricultural Plains
(Based on data from Regional Agromet Centres)****Potohar Region (Rawalpindi)**

There is presently one crop (irrigated condition) grown in the fields of RAMC Rawalpindi.

Maize: Good condition at *Milk maturity* stage.

Central Punjab (Faisalabad)

There is presently one crop (irrigated condition) grown in the fields of RAMC Faisalabad.

Cotton: Very good condition at *Maturity* stage.

Lower Sindh (Tandojam)

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

Cotton: Good condition at *Maturity* stage.

Northern Balochistan (Quetta)

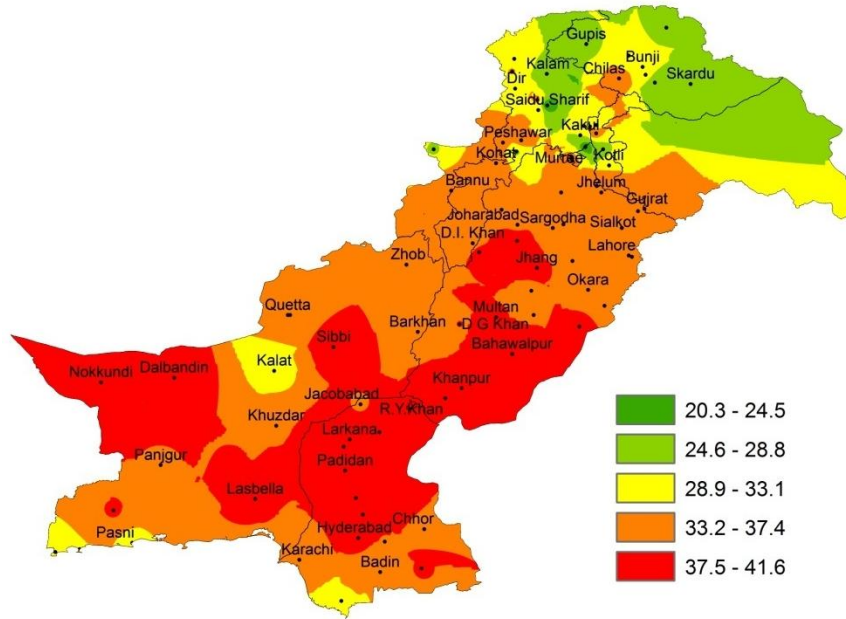
There is presently no crop grown in the fields of RAMC Quetta.

Eastern Balochistan (Usta Muhammad)

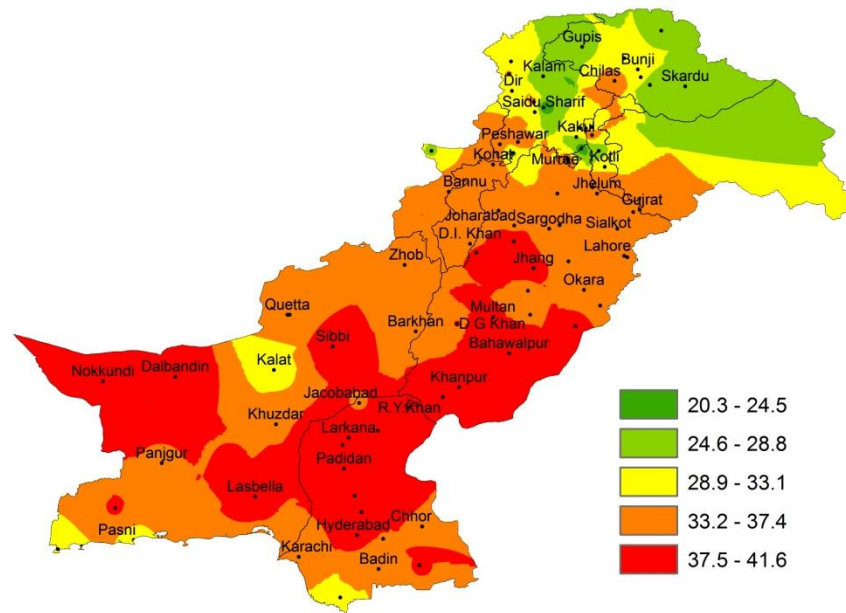
There is presently one crop (irrigated condition) grown in the fields of RAMC Usta Muhammad.

Rice: Good condition at *Flowering* stage.

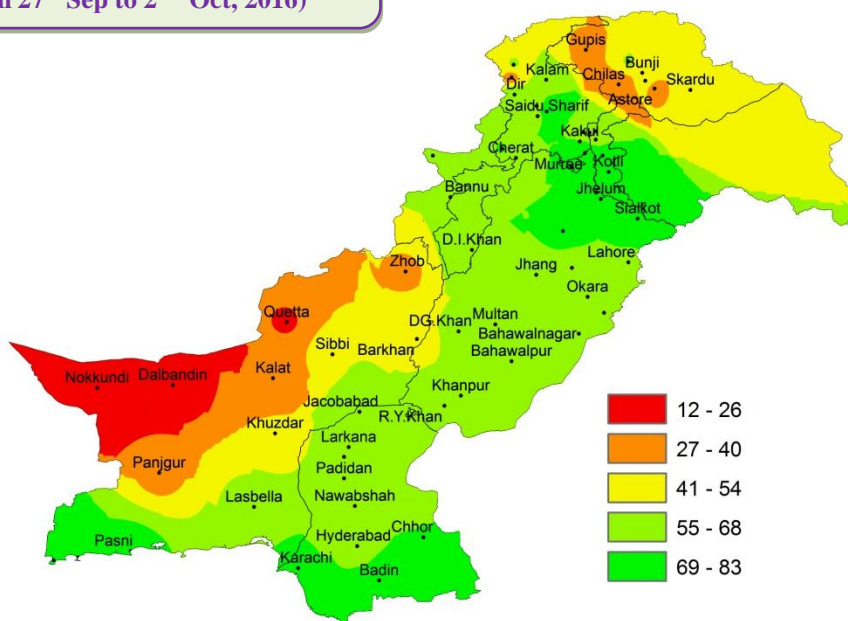
Mean Maximum Temperature (°C) during the Previous week (from 27th Sep to 2nd Oct, 2016)



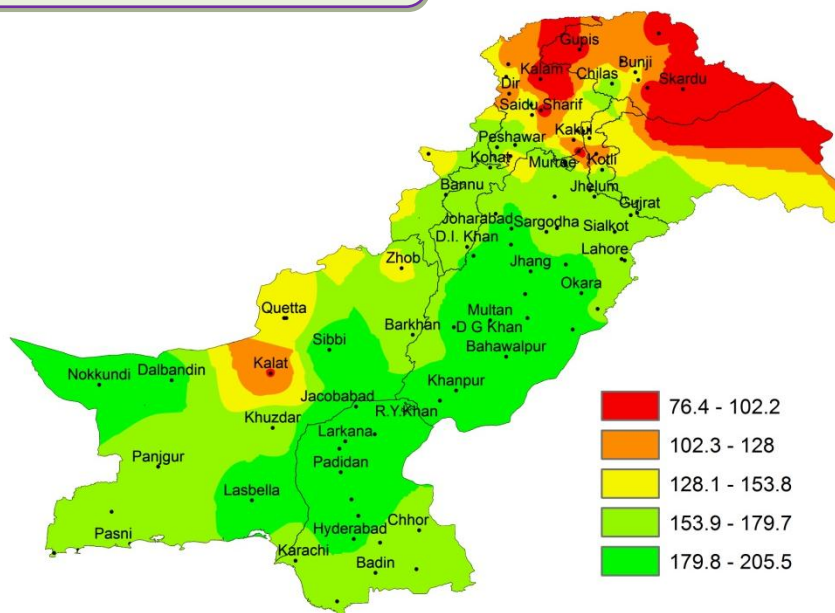
Highest Maximum Temperature (°C) during the Previous week (from 27th Sep to 2nd Oct, 2016)



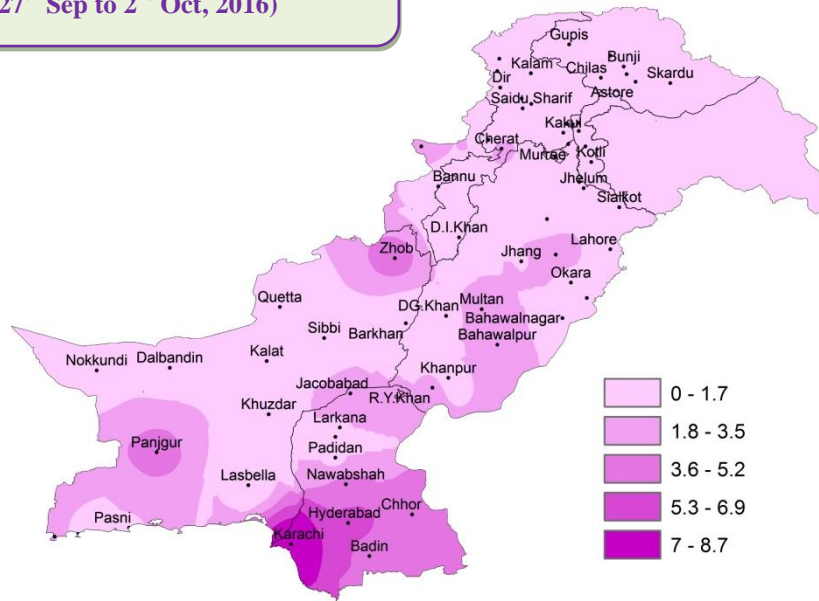
Mean Relative Humidity (%) during the Previous week (from 27th Sep to 2nd Oct, 2016)



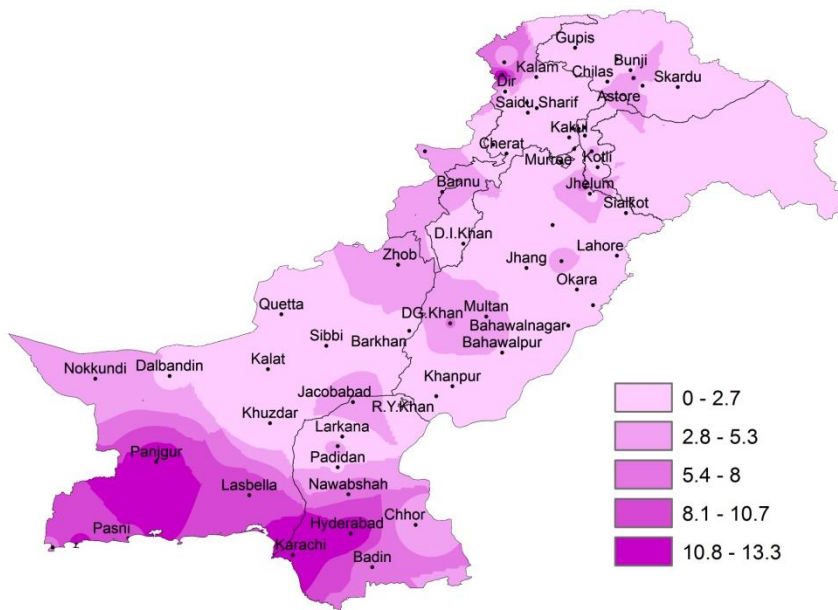
Total Growing Degree Days accumulated during the Previous week (from 27th Sep to 2nd Oct, 2016)



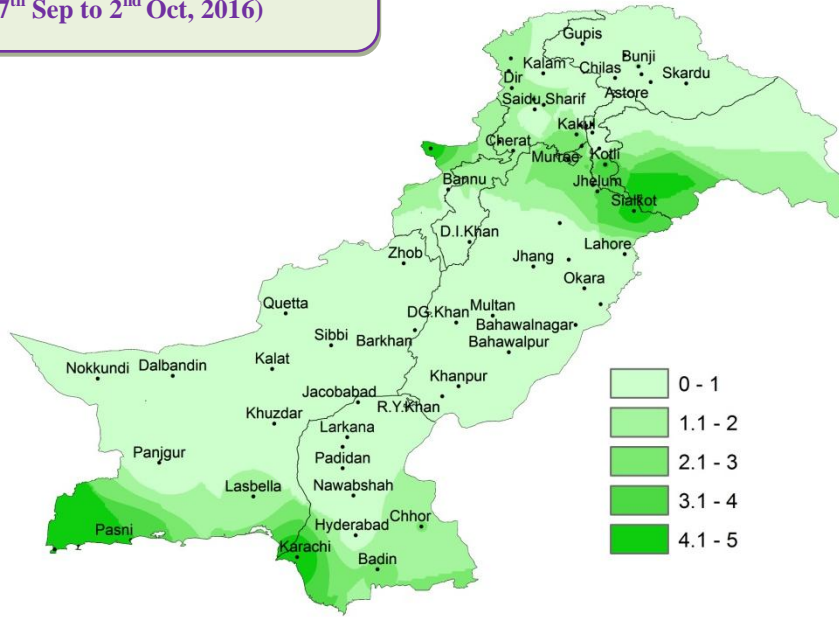
Mean Wind Speed (Knots) at 0800PST during the Previous week (from 27th Sep to 2nd Oct, 2016)



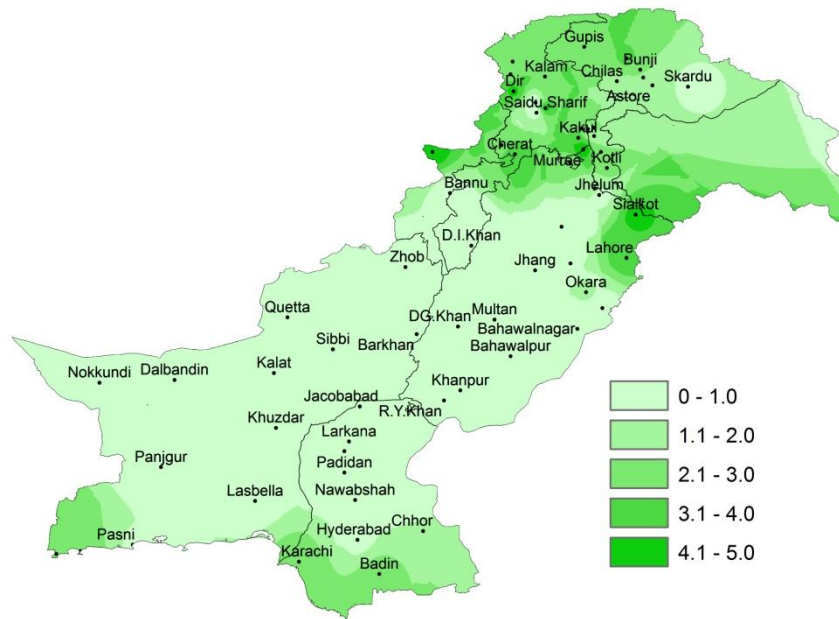
Mean Wind Speed (Knots) at 1200PST during the Previous week (from 27th Sep to 2nd Oct, 2016)



Mean Cloudiness (Oktas) at 0800PST during the Previous week (from 27th Sep to 2nd Oct, 2016)



Mean Cloudiness (Oktas) at 1200 PST during the Previous week (from 27th Sep to 2nd Oct, 2016)



Weekly Weather Advisory for Farmers**(From 3rd to 9th October, 2016)**

Weak seasonal low lies over north Balochistan and its adjoining areas. A trough of westerly wave lies over northeast Afghanistan.

MONDAY**03-10-2016**

Mainly hot and dry weather is expected in most parts of the country. However, rain-thunderstorm is expected at isolated places of Malakand, Hazara, Mirpurkhas, Makran divisions, upper FATA, Kashmir and Gilgit-Baltistan.

TUESDAY**04-10-2016**

Mainly hot and dry weather is expected in most parts of the country. However, rain-thunderstorm is expected at isolated places of Malakand, Hazara, Mirpurkhas, Thatta, Rawalpindi, Gujranwala divisions, upper FATA, Kashmir and Gilgit-Baltistan.

WEDNESDAY**05-10-2016**

Rain-thunderstorm is expected at scattered places in Sindh and Malakand, Mardan division, while at isolated places in south Punjab (Bahawalpur division), Bannu, Peshawar division, Kashmir and Gilgit-Baltistan. Hot and dry weather elsewhere in the country.

THURSDAY**06-10-2016**

Rain-thunderstorm is expected at scattered places in Sindh, Punjab, while at isolated places in Peshawar, Mardan, Hazara, Malakand, Bannu divisions, Kashmir and Gilgit-Baltistan. Hot and dry weather elsewhere in the country.

FRIDAY**07-10-2016**

Rain-thunderstorm is expected at isolated places in Upper Sindh, East Balochistan (Sibbi, Naseerabad, Zhob), Faisalabad, Multan, Bahawalpur, R.Y.Khan divisions, FATA, Kashmir and Gilgit-Baltistan. Hot and dry weather elsewhere in the country.

SATURDAY**08-10-2016**

Mainly hot and dry weather is expected in most parts of the country. However, rain-thunderstorm is expected at isolated places in Mirpurkhas, Hyderabad, Larkana, Malakand, Hazara divisions and Gilgit-Baltistan.

SUNDAY**09-10-2016**

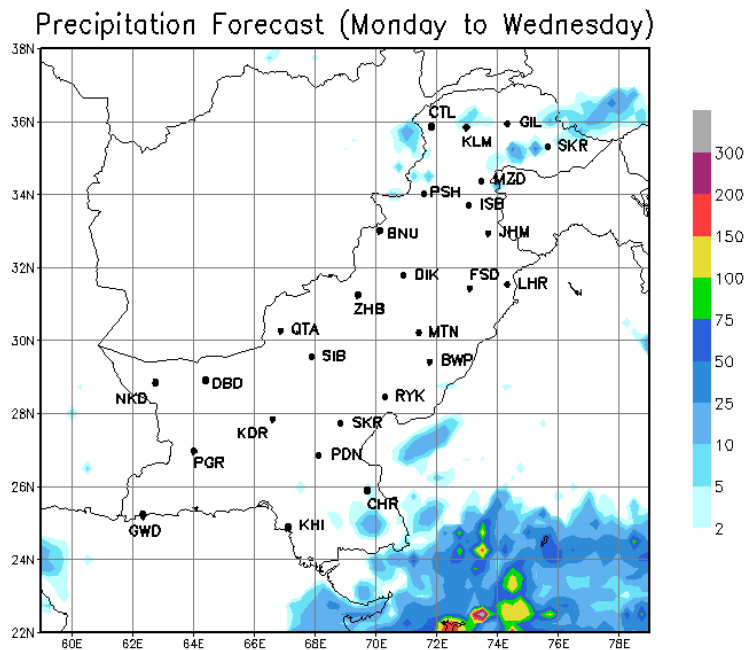
Rain-thunderstorm is expected at scattered places in south eastern Sindh and Malakand, Mardan division, while at isolated places in Kohat, Bannu, Peshawar, Rawalpindi divisions, Islamabad, Kashmir and Gilgit-Baltistan. Hot and dry weather elsewhere in the country.

ADVISES FOR CROPS

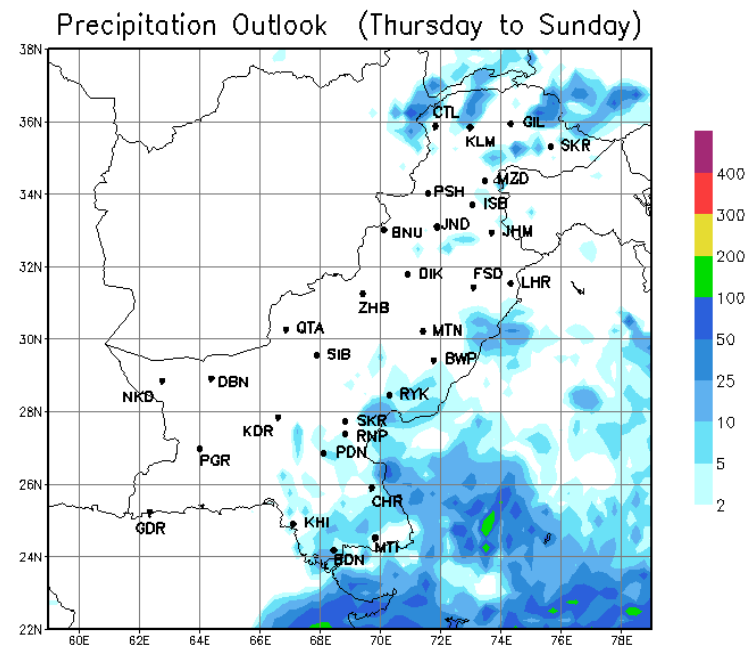
- ❖ Farmers obtaining crop water through tube wells are advised to schedule the irrigation according to the expected weather mentioned during the week.
- ❖ Farmers are advised to control further weeds growth at the present growing stages to stop any negative impact on the crops. Weeds removing practices should be started soon after expected rains in the mentioned.
- ❖ Pest/viral attacks are expected over cotton and sugarcane crops during hot and humid conditions during monsoon. Farmers should be very careful and take in time precautionary measures in this regard.

Weather Outlook from 3rd to 9th October, 2016

The outlook from 3rd to 5th October, 2016 shows that light rainfall is expected in Kashmir and GB and Sindh region. Hot and dry weather is expected elsewhere in the country.



The outlook from 6th to 9th October, 2016 shows that light to moderate rainfall is expected in upper parts of the country Kashmir and GB and also in lower parts of the country in southern Punjab and Sindh. Dry weather is expected elsewhere in the country.



National Weather Data of Selected Cities
(Weekly Data from 27th Sep to 2nd Oct, 2016)

Stations	Maximum/Day time Temperature (°C)		Growing Degree Days	Relative Humidity (%)	Rainfall (mm)	Cloudiness (Oktas) 0800PST	Cloudiness (Oktas) 1700PST	Wind Speed (Knots) 0800PST	Wind Speed (Knots) 1700PST
	Mean	Highest							
Astore	26.2	27.5	93.3	36	0.0	0.0	1.3	0.0	2.0
Badin	33.2	34.5	170.3	73	0.0	2.2	2.7	4.7	6.0
Bahawalnagar	38.9	40.0	195.0	58	0.0	0.0	0.0	0.3	0.0
Bahawalpur	39.0	40.1	191.3	60	0.0	0.0	0.4	2.7	2.6
Balakot	33.1	34.0	145.9	67	8.0	0.7	3.0	0.3	0.0
Bannu	37.4	38.4	169.4	56	0.0	0.8	0.0	0.0	3.5
Barkhan	35.1	36.0	160.8	46	0.0	0.0	0.4	0.0	1.7
Bunji	32.6	34.4	140.2	43	0.0	1.2	2.7	1.7	1.7
Cherat	28.7	30.5	131.0	59	0.0	1.8	3.7	2.0	2.6
Chhor	35.8	37.2	173.1	68	0.0	2.0	1.0	4.0	3.7
Chilas	37.0	37.5	175.3	26	0.1	0.0	1.6	1.0	2.6
Chitral	33.2	35.8	129.0	56	0.0	1.3	2.9	0.0	3.1
D.I.Khan	37.6	39.0	182.5	68	0.0	0.0	0.0	0.0	0.6
Dalbandin	41.3	43.0	178.0	18	0.0	0.2	0.3	1.0	2.3
DG.Khan	37.9	38.4	185.7	60	0.0	0.0	0.0	1.0	5.4
Dir	30.6	32.0	115.5	69	6.0	1.3	4.3	0.0	2.0
Drosh	34.1	36.5	144.0	32	0.2	1.5	2.4	0.0	13.4
Faisalabad	37.6	38.5	185.3	61	0.0	0.0	0.4	1.2	1.3
Garidopatta	34.2	35.2	152.0	63	0.0	0.2	1.0	0.0	1.1
Gawader	32.7	33.5	165.5	73	0.0	4.0	3.0	1.0	11.1
Gilgit	33.2	34.0	120.5	56	0.0	0.3	3.3	0.0	0.0

Gupis	28.4	30.0	99.3	34	0.0	0.7	2.9	1.3	2.0
Hyderabad	36.5	38.5	176.6	65	0.0	0.7	0.6	6.0	12.9
Islamabad	34.3	36.5	161.6	69	0.1	2.8	1.9	0.0	0.6
Jacobabad	36.9	39.0	187.2	64	0.0	0.0	0.0	2.3	3.4
Jhang	38.7	39.0	191.2	61	0.0	1.0	0.3	1.7	0.3
Jhelum	35.8	37.5	178.7	74	0.0	3.2	0.0	0.0	1.4
Jiwani	31.8	33.0	164.8	75	0.0	5.0	2.1	3.3	7.4
Kakul	28.9	30.5	121.6	68	1.0	3.0	3.6	0.0	1.1
Kalam	24.9	26.0	85.2	64	0.0	0.0	2.7	0.0	2.6
Kalat	30.1	31.0	102.0	28	0.0	0.0	0.0	0.0	0.0
Karachi	33.3	34.5	173.5	72	0.0	4.8	2.9	8.7	11.4
Khanpur	38.4	40.0	187.3	64	0.0	0.0	0.4	1.3	0.3
Khuzdar	35.6	37.0	170.5	42	0.0	0.0	0.4	0.0	0.6
Kotli	33.4	35.6	162.4	70	0.0	4.2	2.4	1.7	1.4
Lahore	35.3	36.7	178.1	65	0.6	0.8	3.9	0.7	2.0
Larkana	39.1	40.5	192.2	62	0.0	0.0	0.0	1.7	1.7
Lasbella	37.9	41.0	185.6	63	0.0	1.3	0.3	0.3	9.7
Lower Dir	35.4	36.5	164.3	62	12.0	2.3	0.3	1.3	2.0
M.B Din	36.3	37.5	180.3	75	0.0	0.8	0.0	0.7	0.0
Malam Jabba	20.5	22.0	72.0	79	4.0	1.2	4.6	0.0	0.0
Mangla	35.5	37.2	174.7	69	0.0	2.2	2.0	0.0	7.1
Mir Khani	35.1	37.2	143.1	46	0.0	0.0	1.3	0.0	6.0
Moinjodaro	38.8	39.5	183.5	61	0.0	0.0	0.0	1.7	3.1
Multan	38.4	39.1	196.3	54	0.0	0.0	0.0	2.7	3.1
Murree	21.5	23.5	89.3	83	3.0	2.7	5.0	0.3	0.6
Muzaffarabad	33.3	34.4	146.6	65	0.0	0.5	1.0	0.0	1.7

Nawabshah	39.1	41.5	187.1	59	0.0	0.7	0.4	4.0	8.0
Nokkundi	41.4	44.5	197.0	12	0.0	0.5	0.0	1.0	3.4
Okara	37.6	38.0	187.9	64	0.0	0.0	1.3	1.0	0.0
Padidan	38.4	39.5	186.0	64	0.0	0.5	0.1	1.3	2.3
Panjgur	39.4	40.0	175.5	33	0.0	0.0	0.0	4.0	11.7
Parachinar	27.2	28.5	122.5	66	0.0	4.5	4.9	3.0	3.0
Pasni	32.1	33.5	166.3	77	0.0	4.0	0.9	1.7	10.6
Pattan	35.4	36.0	164.0	60	1.0	1.3	2.6	0.0	0.3
Peshawar	35.6	36.5	176.3	69	0.0	1.5	2.6	1.3	2.3
Quetta	31.5	32.2	131.2	25	0.0	0.0	0.0	2.3	2.9
R.Y.Khan	39.5	41.0	190.2	63	0.0	0.0	0.0	2.0	1.1
Rawalpindi	34.6	36.2	168.9	67	0.0	3.0	1.4	0.9	0.6
Rawalakot	27.0	28.4	106.7	79	0.0	0.0	2.1	0.0	3.1
Sahiwal	37.5	38.0	178.0	61	0.0	0.0	0.0	1.3	1.4
Saidu Sharif	31.7	33.5	143.3	65	3.0	0.0	0.4	0.0	0.0
Sialkot	34.1	36.0	171.6	77	0.0	4.5	4.4	0.7	0.9
Sibbi	40.4	42.0	202.3	53	0.0	0.0	0.0	0.3	1.7
Skardu	28.5	29.7	90.5	43	0.0	0.2	0.9	0.0	0.0
Tandojam	37.1	38.0	174.3	68	0.0	0.6	0.7	2.3	3.2
Usta.M	35.4	39.2	174.4	70	0.0	0.0	0.0	0.0	2.0
Zhob	35.0	36.0	154.3	37	0.0	0.0	0.0	4.2	4.3

*** 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)