

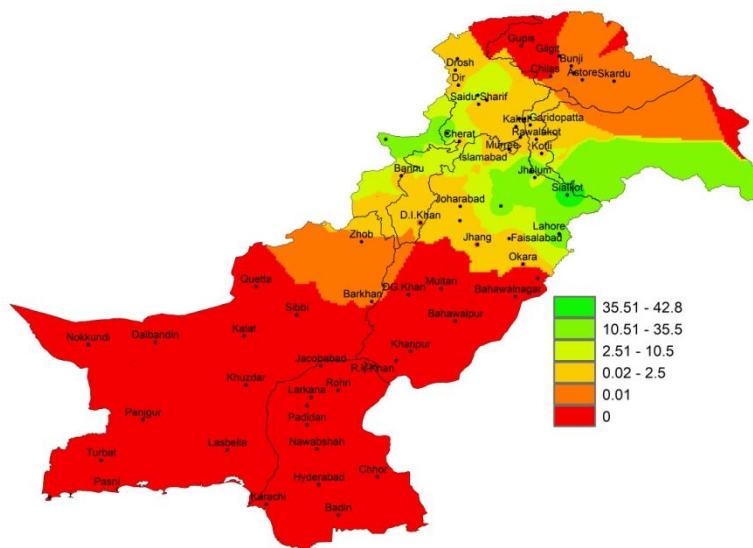
Weekly Weather and Crop Bulletin for Pakistan

**NATIONAL AGROMET CENTRE
PAKISTAN METEOROLOGICAL
DEPARTMENT SECTOR H-8/2,
ISLAMABAD.**

Phone: +92-51-9250299

Email: dirnamc@yahoo.com

**Rainfall Distribution (mm) during the Previous
Week (17th September to 23rd September, 2018)**



Contents

Highlights of past weather (General)	1-2
Past weather for Agri Plains	3-4
Crop progress	4
Min Temperature maps	5
R.H and GDD	6
Wind speed maps	7
Cloudiness maps	8
Farmers advisory	9
Weather Outlook	10
National data for selected stations	11-13
AgMIP findings	14

Highlights of Past Weather (17th September to 23rd September, 2018)

Above normal day temperature was observed in Khyber Pakhtunkhwa and Sindh. However, normal to below normal day temperature was observed in Punjab, Gilgit-Baltistan, Azad Jammu & Kashmir and Baluchistan.

Province wise distribution of rainfall reported as follows:

- Light to moderate rainfall observed in Punjab and Khyber Pakhtunkhwa during the previous week.
- Light rainfall observed in Gilgit-Baltistan, Azad Jammu & Kashmir, Sindh and Baluchistan during the previous week.

Patron-in-Chief: Dr. Ghulam Rasul (Director General)

Editor-in-Chief: Asma Jawad Hashmi (Deputy Director)

Editor: Saeeda Saleh (Assistant Meteorologist)

Past Weather of Provinces (17th September to 23rd September, 2018)**Punjab**

Light to moderate rainfall observed in Punjab during the week. Weekly maximum and minimum temperatures recorded as 35.0°C & 23.1°C respectively. For the recent week on average 168.9 growing degree days were accumulated by the end of the last week. Average relative humidity recorded as 63% and wind speed in the morning/evening recorded as 2.0/3.5 Knots. During the previous week the highest amount of rainfall was recorded as 42.32 mm at Sialkot & highest maximum temperature was recorded as 41.0°C at Rahimyar Khan.

Sindh

Light rainfall observed in Sindh at a single station during the week. Weekly maximum and minimum temperatures recorded as 37.8°C & 24.2°C respectively. For the recent week, on average 179.0 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 61% and wind speed in the morning/evening recorded as 2.9/4.0 Knots. During the previous week the highest amount of rainfall was recorded as 0.01mm at Mirpur khas & highest maximum temperature was recorded as 42.0°C at Mithi.

Khyber Pakhtunkhwa

Light to moderate rainfall observed in Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 32.1°C & 16.8°C respectively. For the recent week on average 139.5 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 0.7/2.7 Knots. During the previous week the highest amount of rainfall was recorded as 16.00 mm at Peshawar & highest

maximum temperature was recorded as 40.0°C at D. I. Khan.

Baluchistan

Light rainfall observed in Baluchistan at a single station during the week. Weekly maximum and minimum temperatures recorded as 34.4°C & 19.1°C respectively. For the recent week on average 143.2 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 45% and wind speed in the morning/evening recorded as 1.5/5.0 Knots. During the previous week the highest amount of rainfall was recorded as 0.01 mm Zhob & highest maximum temperature was recorded as 42.8°C at Lasbella.

Gilgit-Baltistan and Azad Jammu & Kashmir

Light rainfall observed in Gilgit-Baltistan & Kashmir during the week. Weekly maximum and minimum temperatures recorded as 30.6°C & 13.4°C respectively. For the recent week on average 115.0 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 0.8/1.2 Knots. During the previous week the highest amount of rainfall was recorded as 0.10 mm at Rawlakot & highest maximum temperature was recorded as 37.5°C at Chillas.

Past Weather for Major Agricultural Plains (17th September to 23rd September, 2018)

Rawalpindi (Potohar region)

Dry weather reported from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 3.2/2.3 Oktas while, average relative humidity observed as 62%. Mean day time temperature recorded as 34.7°C & for the recent week 157.2 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.8/0.8 Knots.

Faisalabad (Central Punjab)

0.01mm (Trace) rainfall reported from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 2.1/1.6 Oktas while, while, average relative humidity observed as 63%. Mean day time temperature recorded as 36.0°C & for the recent week 173.6 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.2/1.4 Knots.

Tandojam (Lower Sindh)

Dry weather reported from Tandojam during the week; however, cloudiness recorded in the morning/evening as 0.3/0.0 Oktas while, average relative humidity observed as 65%. Mean day time temperature recorded as 37.4°C & for the recent week 172.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.3/2.3 Knots.

Usta Muhammad (Eastern Baluchistan)

Dry weather reported from Usta Muhammad during the week; however, no cloudiness were recorded while, average relative humidity observed as 68%. Mean day time temperature recorded as 36.3°C & for the recent week 185.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.5/2.5 Knots.

Quetta (Northern Baluchistan)

Dry weather reported from Quetta during the week; however, cloudiness in the morning/evening recorded as 0.8/0.6 Oktas while, average relative humidity observed as 18%. Mean day time temperature recorded as 30.0°C & for the recent

week 117.4 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.2/3.1 Knots.

Past Weather for Sub-Regional Agricultural Plains (17th September to 23rd September, 2018)

Multan

Dry weather reported from Multan during the week; however, cloudiness in the morning/evening recorded as 1.0/0.7 Oktas while, average relative humidity observed as 55%. Mean day time temperature recorded as 36.7°C & for the recent week 183.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 6.7/6.7 Knots.

Lahore

Rainfall reported as 13.60mm from Lahore during the week; however, cloudiness in the morning/evening recorded as 1.0/2.5 Oktas while, average relative humidity observed as 67%. Mean day time temperature recorded as 32.6°C & for the recent week 156.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening 0.3/3.7 Knots.

Zhob

Rainfall reported as 0.01 mm (trace) from Zhob during the week; however, cloudiness in the morning/evening recorded as 0.3/0.7 Oktas while, average relative humidity observed as 42%. Mean day time temperature recorded as 32.5°C & for the recent week 128.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 3.3/5.0 Knots.

Murree

Dry weather reported from Murree during the week; however, cloudiness in the morning/evening recorded as 1.3/1.8 Oktas while, average relative humidity observed as 65%. Mean day time temperature recorded as 22.5°C & for the recent week 94.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.7/0.3 Knots.

D.I. Khan

Dry weather reported from D.I. Khan during the week; however, cloudiness in the morning/evening

recorded as 1.0/0.0 Oktas while, average relative humidity observed as 57%. Mean day time temperature recorded as 38.1°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 0.7/1.0 Knots.

Peshawar

Rainfall reported as 16.00 mm from Peshawar during the week; however, cloudiness in the morning/evening recorded as 1.0/0.7 Oktas while, average relative humidity observed as 65%. Mean day time temperature recorded as 35.3°C & for the recent week 158.7 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/1.7 Knots.

Kalam

Rainfall reported as 5.00 mm from Kalam during the week; however, cloudiness in the morning/evening recorded as 0.8/2.0 Oktas while, average relative humidity observed as 52%. Mean day time temperature recorded as 25.3°C by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.3 Knots.

Gilgit

Dry weather reported from Gilgit during the week; However, cloudiness in the morning/evening recorded as 1.7/2.7 Oktas while, average relative humidity observed as 53%. Mean day time temperature recorded as 32.9°C & for the recent week 115.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.3 Knots.

Skardu

Dry weather reported from Skardu during the week; however, cloudiness in the morning/evening recorded as 2.3/3.3 Oktas while, average relative humidity observed as 42%. Mean day time temperature recorded as 26.8°C & for the recent week 81.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.0 Knots.

Crop Situation for Major Agricultural Plains (Based on data from Regional Agro met Centers)

Potohar Region (Rawalpindi)

Presently maize crop is sown in the fields of RAMC Rawalpindi.

Maize; Very Good, 9th leaf stage.

Central Punjab (Faisalabad)

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

Cotton; Very Good, Full maturity stage.

Lower Sindh (Tandojam)

There is presently cotton crop in the fields of RAMC Tandojam.

Cotton (CIM 602); Good, Maturity stage.

Northern Baluchistan (Quetta)

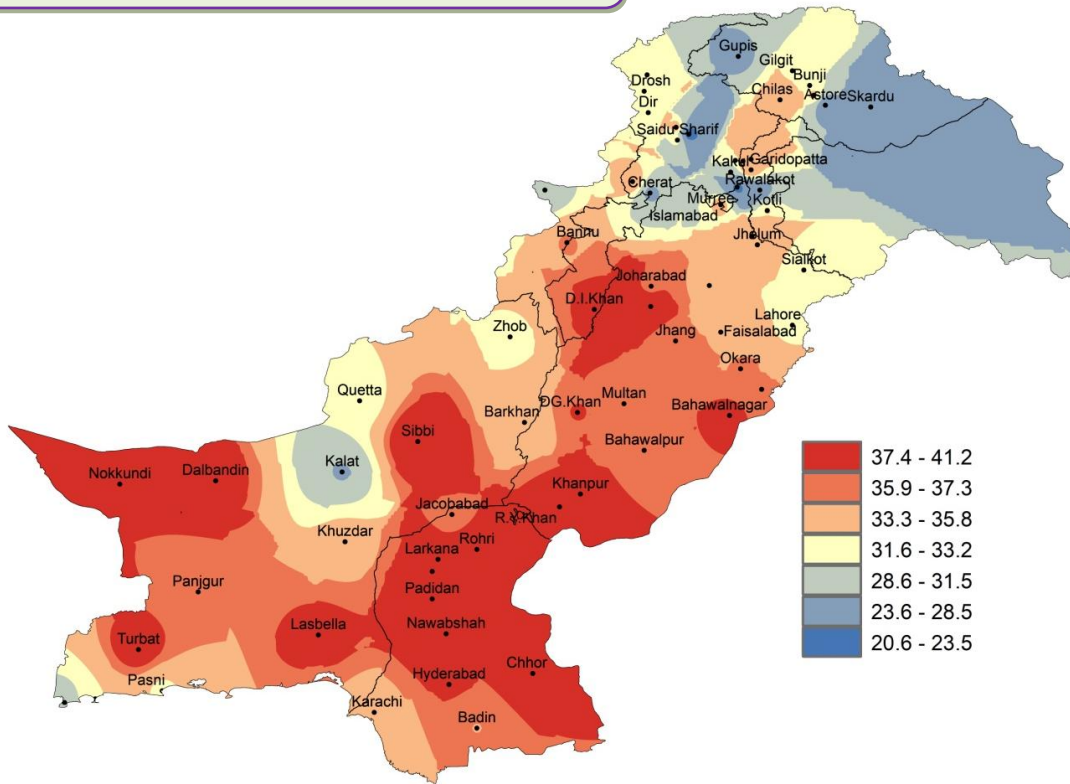
There is presently no crop grown in the fields of RAMC Quetta.

Eastern Baluchistan (Usta Muhammad)

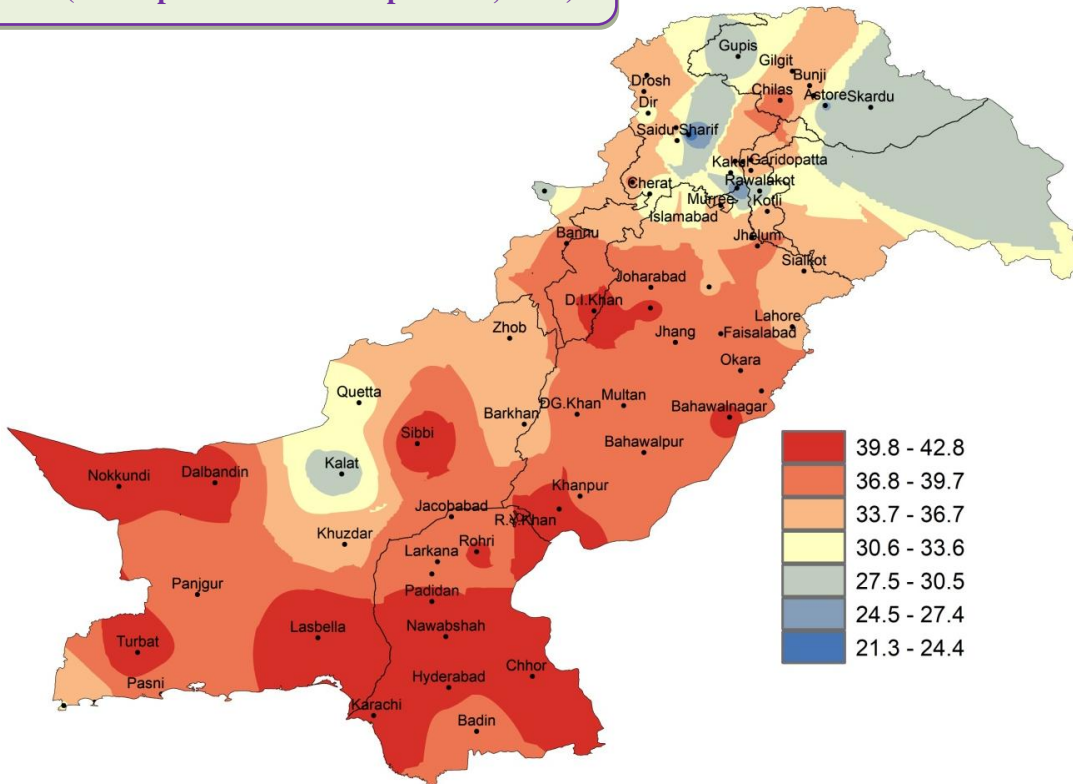
There is presently rice crop in the fields of RAMC Usta Muhammad.

Rice; Flowering stage.

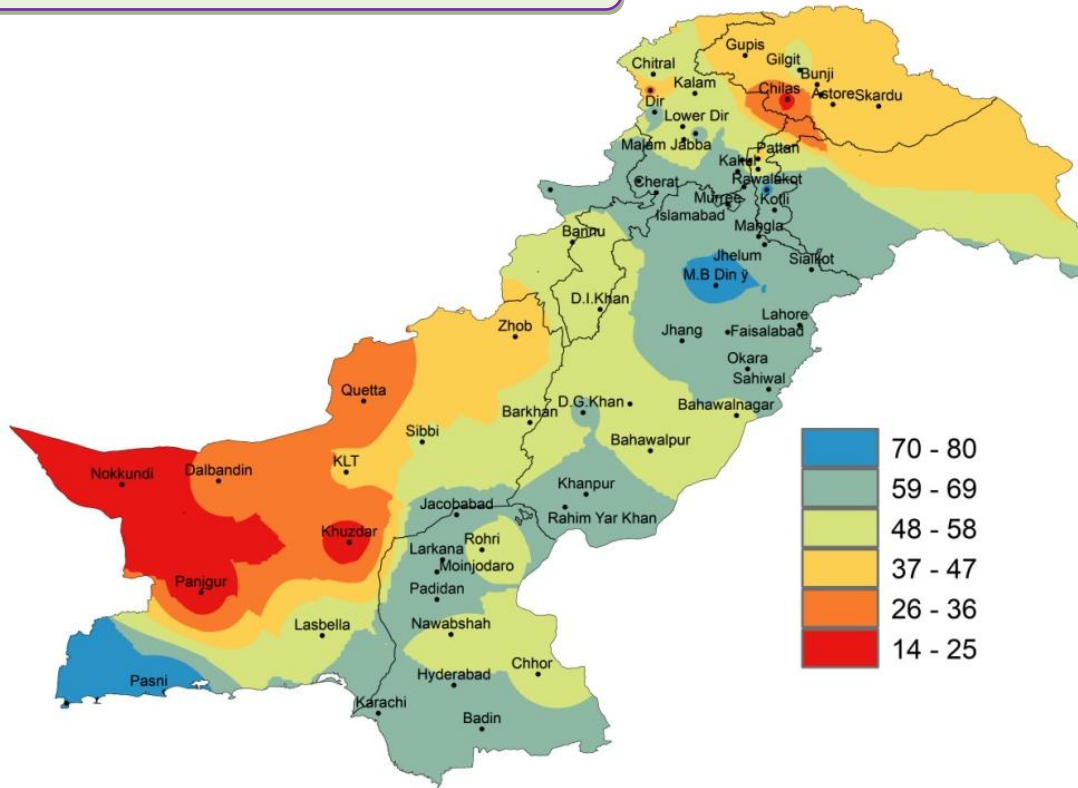
Mean Maximum Temperature (°C) during the Previous week (17th September to 23rd September, 2018)



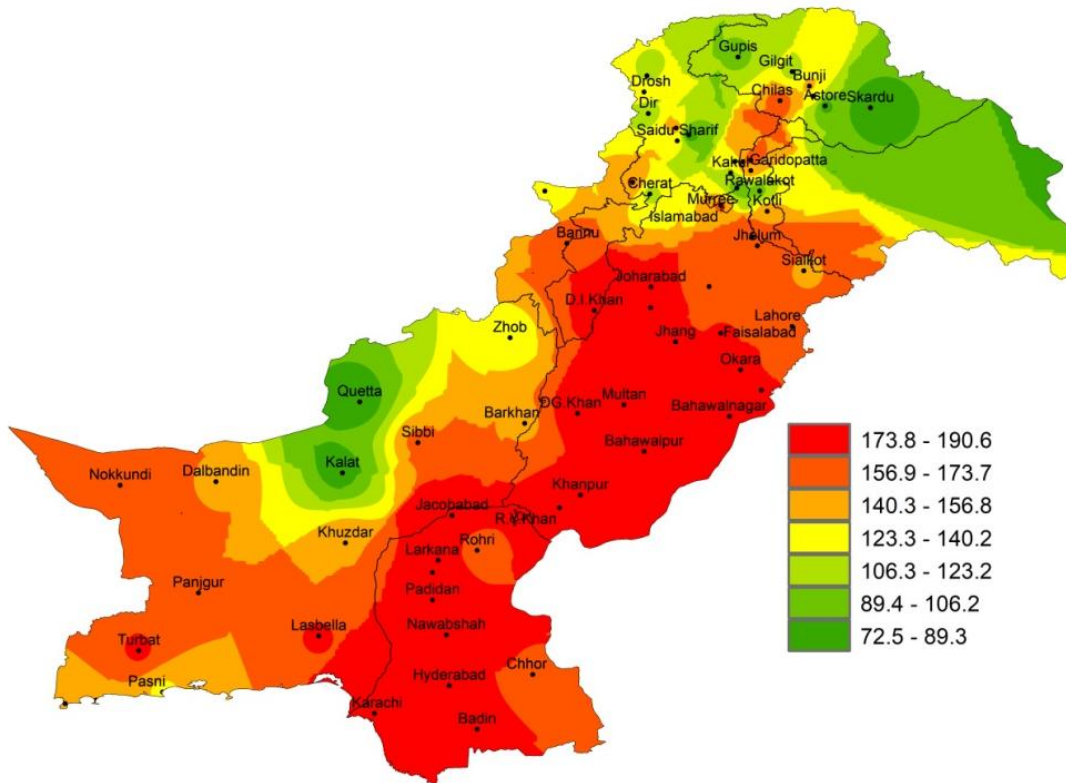
Highest maximum Temperature (°C) during the Previous week (17th September to 23rd September, 2018)



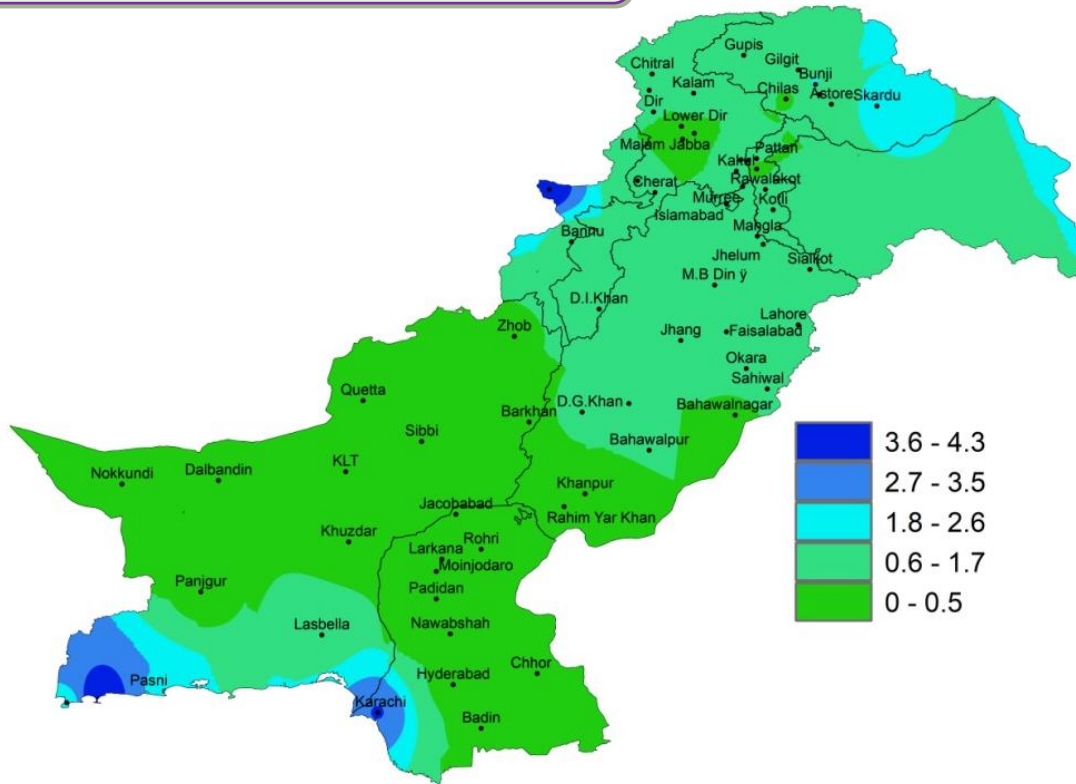
Mean Relative Humidity (%) during the Previous week (17th September to 23rd September, 2018)



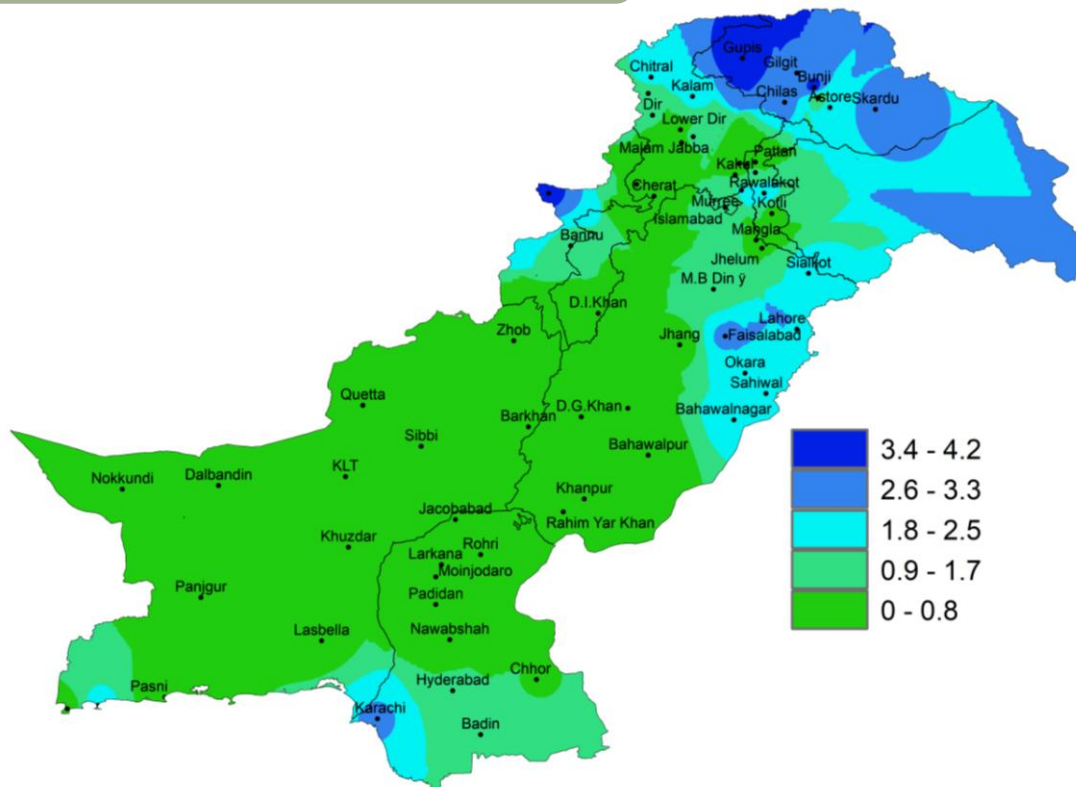
Total Growing Degree Days accumulated during the Previous week (17th September to 23rd September, 2018)



Mean Cloudiness (Oktas) at 0800PST during the Previous week (17th September to 23rd September, 2018)



Mean Cloudiness (Oktas) at 1700PST during the Previous week (17th September to 23rd September, 2018)



Weekly Weather Advisory for Farmers
(24th September to 30th September, 2018)

A shallow westerly wave is affecting northern parts of the country.

MONDAY

24-09-2018

Mainly dry weather is expected in most parts of the country. However, rain-thundershower is expected at isolated places in Malakand, Lahore, Gujranwala divisions, Gilgit-Baltistan and Kashmir.

TUESDAY

25-09-2018

Mainly dry weather is expected in most parts of the country. However, rain-thundershower is expected at few places in Gilgit-Baltistan.

WEDNESDAY

26-09-2018

Mainly dry weather is expected in most parts of the country. However, rain-thundershower is expected at isolated places in Malakand division and Gilgit-Baltistan.

THURSDAY

27-09-2018

Mainly dry weather is expected in most parts of the country. However, rain-thundershower is expected at isolated places in Malakand, Hazara, Mardan divisions and Gilgit-Baltistan.

FRIDAY

28-09-2018.

Mainly dry weather is expected in most parts of the country. However, rain-thundershower is expected

at isolated places in Malakand, Hazara, Kohat, Peshawar, Rawalpindi, Gujranwala, Sargodha, Zhob divisions, Islamabad, Kashmir and Gilgit-Baltistan.

SATURDAY

29-09-2018

Mainly dry weather is expected in most parts of the country. However, rain-thundershower is expected at isolated places in Malakand division and Gilgit-Baltistan.

SUNDAY

30-09-2018

Mainly dry weather is expected in most parts of the country. However, rain-thundershower is expected at isolated places in Malakand division, Gilgit-Baltistan and Kashmir.

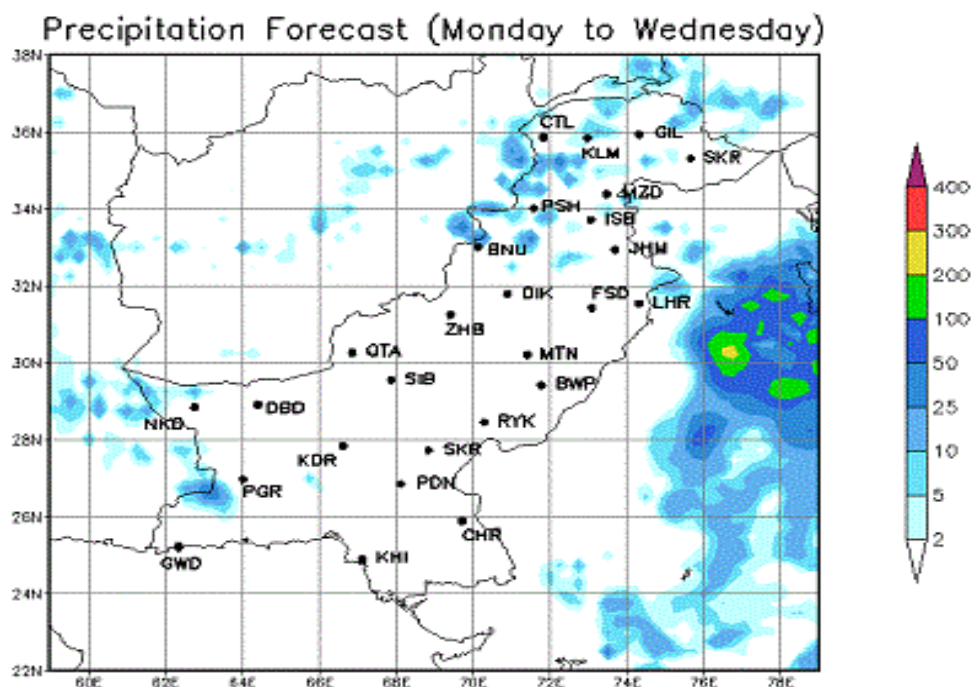
ADVISES FOR FARMERS

During the last week, light to moderate rainfall occurred in upper half of the country while hot and dry weather prevailed in rest parts. This may continue with almost the same pattern in coming days as well. Keeping in view the expected weather conditions following advises are suggested for farming community.

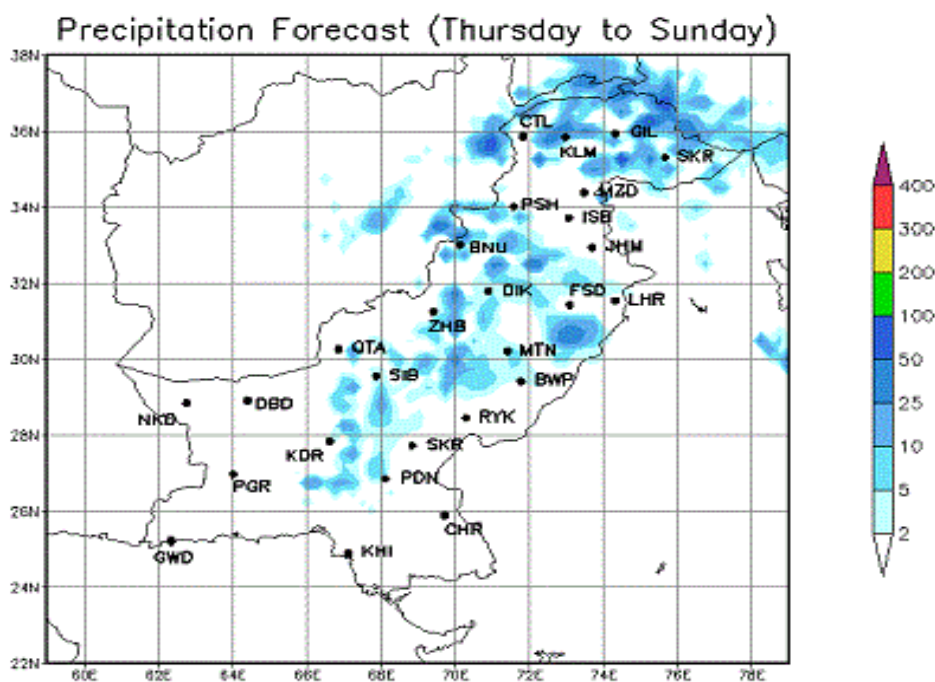
- Use pesticides to avoid the attack from pests on the crops as advised by the agriculture department.
- Use proper precautions during picking of cotton because the cost of good and clean quality cotton is high than that of the filthy one.

Weather Outlook from (24th September to 30th September, 2018)

The outlook from 24th September to 26th September, 2018 shows that light to moderate rainfall is expected at scattered places of Khyber Pakhtunkhwa, Gilgit Baltistan, Kashmir and western part of Baluchistan. However, dry weather may prevail in rest of the country.



The outlook from 27th September to 30th September, 2018 shows that light to moderate rainfall is expected at scattered places of Khyber Pakhtunkhwa, Punjab, GB, northwestern Sindh and northeastern parts of Baluchistan.



National Weather Data of Selected Cities (Weekly Data from 17th September to 23rd September, 2018)

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	24.9	26.5	80.3	42	0.00	0.8	2.0	1.0	2.3
Badin	35.8	38.5	174.7	65	0.00	0.0	1.2	3.7	3.6
Bahawalnagar	37.9	40.0	189.0	55	0.00	0.0	2.0	0.0	3.3
Bahawalpur	36.3	38.0	176.0	58	0.00	0.5	0.0	4.3	5.3
Balakot	32.7	34.5	129.4	62	0.01	1.2	0.0	0.6	0.3
Bannu	36.0	37.7	169.8	50	1.00	1.0	1.3	0.0	4.7
Barkhan	33.4	34.5	152.8	48	0.00	0.0	0.8	0.0	2.0
Bunji	32.6	35.0	143.9	39	0.00	1.8	4.2	2.0	0.7
Cherat	27.7	31.5	118.3	62	1.00	0.5	0.5	2.3	3.3
Chhor	38.8	41.8	171.9	57	0.00	0.0	0.8	4.7	5.2
Chilas	35.5	37.5	163.3	23	0.00	0.3	2.7	0.7	1.7
Chitral	32.6	34.0	121.0	53	0.00	1.3	2.2	0.0	2.7
D.I.Khan	37.4	39.0	184.2	60	0.00	0.8	0.0	4.0	6.0
Dalbandin	38.1	40.0	181.0	57	0.00	1.0	0.0	0.7	1.0
D.G.Khan	38.6	40.5	155.5	28	0.00	0.0	0.0	1.0	2.3
Dir	31.9	33.0	113.0	63	2.00	0.5	1.0	0.0	1.7
Drosh	32.4	35.0	133.6	33	0.00	1.0	1.0	0.0	11.7
Faisalabad	36.0	38.3	173.6	63	0.01	2.1	1.6	1.2	1.4
Garidopatta	34.6	35.5	143.8	56	0.00	0.0	1.0	0.3	1.3
Gawader	33.2	36.0	152.5	71	0.00	4.3	2.2	0.0	11.0
Gilgit	32.9	34.5	115.3	53	0.00	1.7	2.7	0.0	0.3
Gupis	27.1	28.5	101.8	40	0.00	0.8	4.2	2.0	3.0
Hyderabad	37.4	40.0	176.0	59	0.00	0.0	1.0	3.0	7.2

Islamabad	34.4	35.5	161.0	59	0.01	1.2	0.8	1.0	1.7
Jacobabad	36.8	37.0	183.0	61	0.00	0.0	0.0	2.7	1.0
Jhang	36.3	38.2	176.5	62	0.00	0.8	0.2	1.7	1.0
Jhelum	34.9	37.5	165.3	68	1.81	1.3	0.8	1.0	2.3
Jiwani	29.9	33.5	148.8	77	0.00	2.2	0.3	1.3	6.3
Kakul	29.4	31.0	118.4	62	1.00	0.8	0.8	0.0	1.3
Kalam	25.3	27.0	***	52	5.00	0.8	2.0	0.0	0.3
Karachi	34.3	41.0	174.1	69	0.00	3.5	2.7	5.7	10.7
Khanpur	37.6	39.2	178.1	63	0.00	0.0	0.3	0.3	2.3
Khuzdar	34.2	36.0	153.5	21	0.00	0.0	0.0	0.7	0.7
Kalat	28.3	29.0	83.5	38	0.00	0.0	0.0	0.0	0.3
Kotli	33.4	36.1	154.3	62	1.00	1.3	0.5	2.3	1.7
Lahore	32.6	36.0	156.8	67	13.60	1.0	2.5	0.3	3.7
Larkana	37.8	38.5	186.3	65	0.00	0.0	0.0	3.2	2.0
Lasbella	38.0	42.8	174.2	57	0.00	1.3	0.4	0.0	4.4
Lower Dir	34.8	36.5	152.5	48	8.00	0.5	0.2	2.0	2.0
M.B Din	34.5	36.5	162.9	74	13.00	1.3	1.0	1.3	1.3
Malam Jabba	20.3	21.0	71.0	61	1.00	0.3	1.7	1.7	2.0
Mangla	34.0	36.1	157.5	66	31.20	1.7	0.8	2.0	6.7
Mir Khani	34.0	36.0	138.9	37	0.01	1.0	0.5	0.0	4.8
Moinjodaro	38.5	39.0	175.5	60	0.00	0.0	0.0	2.7	4.0
Multan(PBO)	36.7	38.7	183.5	55	0.00	1.0	0.7	6.7	6.7
Murree	22.5	24.6	94.8	65	0.00	1.3	1.8	0.7	0.3
Muzaffarabad	34.1	35.0	156.9	48	0.00	0.8	0.8	0.0	1.2
Nawabshah	40.0	41.5	188.8	54	0.00	0.0	0.5	5.0	9.7
Nokkundi	37.5	40.0	171.3	14	0.00	0.0	0.0	8.7	12.3

Okara	35.8	38.5	176.4	66	0.00	1.5	2.0	0.0	1.0
Padidan	38.4	41.0	182.8	65	0.00	0.0	0.4	0.8	2.0
Panjgur	36.0	37.0	157.5	20	0.00	0.0	0.0	5.7	7.7
Parachinar	28.7	30.0	124.0	68	25.00	4.2	3.7	3.0	3.2
Pasni	32.8	37.0	136.8	81	0.00	2.3	0.0	0.0	11.3
Pattan	35.8	37.0	163.8	45	4.00	0.7	0.5	0.0	0.0
Peshawar	35.3	37.0	158.7	65	16.00	1.0	0.7	0.0	1.7
Quetta	30.0	31.5	117.4	18	0.00	0.8	0.6	2.2	3.1
Rahim Y. Khan	38.9	41.0	184.9	61	0.00	0.0	0.0	0.3	2.3
Rawalakot	25.8	28.0	99.4	71	0.10	1.2	2.3	0.0	0.7
Rawalpindi	34.7	36.0	157.2	62	0.00	3.2	2.3	0.8	0.8
Rohri	38.2	40.0	168.0	55	0.00	0.0	0.0	1.3	1.2
Sahiwal	35.8	38.5	174.5	63	0.00	0.8	2.2	1.7	2.3
Saidu Sharif	32.4	34.0	134.3	56	0.00	0.0	0.0	0.0	0.0
Sialkot	32.0	34.8	156.2	69	42.32	1.0	2.3	3.0	6.0
Sibbi	41.3	42.0	161.3	49	0.00	0.0	0.0	0.0	2.0
Skardu	26.8	29.3	81.3	42	0.00	2.3	3.3	0.0	0.0
Tandojam	37.4	40.0	172.0	65	0.00	0.3	0.0	2.3	2.3
Usta.M	36.3	37.0	185.0	68	0.00	0.0	0.0	0.5	2.5
Zhob	32.5	34.5	128.8	42	0.01	0.3	0.7	3.3	5.0

*** 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)