

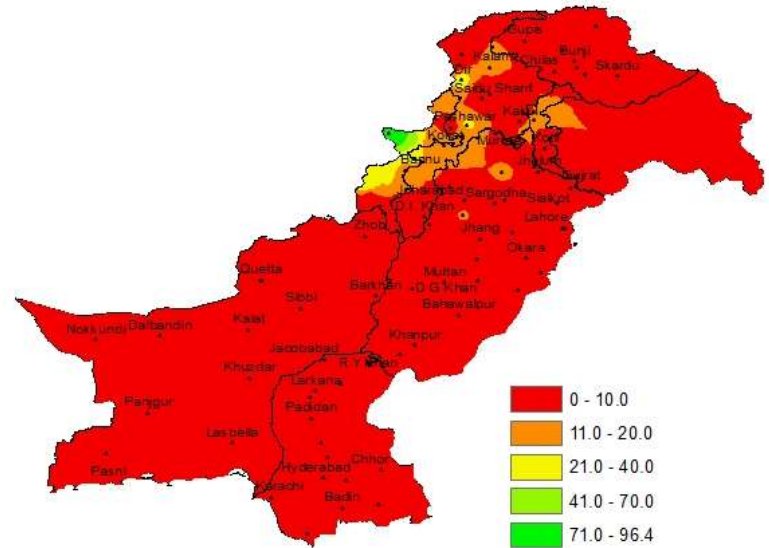
Weekly Weather and Crop Bulletin for Pakistan

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**Rainfall Distribution (mm) during the
Previous Week (from 9th to 15th May, 2016)**



Highlights of Past Weather (from 9th to 15th May, 2016)

Slightly above normal day time temperature was reported from most parts of Punjab and Sindh while normal temperature was reported in the remaining parts of the country during the week.

Province wise distribution of rainfall reported as follows:

- Light to moderate rainfall reported at many places in Khyber Pakhtunkhwa, Punjab, and Gilgit-Baltistan & Kashmir regions.
- Light rainfall reported at few places in Balochistan.
- Light rainfall reported only at single station (Padidan=0.1) in Sindh.

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
National data for selected stations	10-12
Findings of AgMIP Pakistan	13

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Chief Editor: Ch. Muhammad Aslam (Director)

Editor: Asma Jawad Hashmi (Deputy Director)

Past Weather of Provinces (from 9th to 15th May, 2016)**Punjab**

Light to moderate rainfall reported at many places in Punjab during the week. Weekly maximum and minimum temperatures recorded 40.1°C & 24.8°C respectively. For the present season average 184.2 growing degree days accumulated by the end of last week. Average relative humidity recorded 43% and wind speed in the morning/evening recorded 3.4/4.1 Knots. During the previous week the highest amount of rainfall was recorded 31.1mm at Murree & highest maximum temperature recorded 46.5°C at D.G. Khan.

Sindh

Light rainfall reported only at single station (Padidan=0.1) in Sindh during the week. Weekly maximum and minimum temperatures recorded 42.1°C & 26.4°C respectively. For the present season average 198.2 growing degree days accumulated by the end of last week. Average relative humidity recorded 52% and wind speed in the morning/evening recorded 6.2/7.5 Knots. During the previous week the highest maximum temperature recorded 47.0°C Nawabshah.

Khyber Pakhtunkhwa

Light to moderate rainfall reported at many places in Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded 31.8°C & 17.5°C respectively. For the present season average 130.9 growing degree days accumulated by the end of last week. Average relative humidity recorded 56% and wind speed in the morning/evening recorded 1.0/2.2 Knots. During the previous week the highest amount of rainfall was recorded 96.5mm at Parachinar & the highest maximum temperature recorded 44.0°C at D.I.Khan.

Balochistan

Light rainfall reported at few places in Balochistan during the week. Weekly maximum and minimum temperatures recorded 38.1°C & 23.4°C respectively. For the present season average 175.3 growing degree days accumulated by the end of last week. Average relative humidity recorded 49% and wind speed in the morning/evening recorded 1.2/6.5 Knots. During the previous week the highest amount of rainfall was recorded 15.0mm at Barkhan & highest maximum temperature recorded 48.0°C Sibbi.

Gilgit-Baltistan and Azad Jammu & Kashmir

Light to moderate rainfall reported at many places in Gilgit-Baltistan & Kashmir regions during the week. Weekly maximum and minimum temperatures recorded 29.5°C & 15.0°C respectively. For the present season average 117.9 growing degree days accumulated by the end of last week. Average relative humidity recorded 52% and wind speed in the morning/evening recorded 0.9/2.7 Knots. During the previous week the highest amount of rainfall was recorded 40.0mm at Garidopatta & highest maximum temperature recorded 38.1°C at Kotli.

Past Weather for Major Agricultural Plains
(from 9th to 15th May, 2016)

Rawalpindi (Potohar region)

Rainfall reported as 0.6mm during the week; however cloudiness in the morning/evening recorded 1.6/3.0 Oktas while, average relative humidity observed 48%. Mean day time temperature recorded 37.1°C & for the present season 177.7 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.3/1.6 Knots.

Faisalabad (Central Punjab)

Rainfall reported as “Trace” during the week; however cloudiness in the morning/evening recorded 1.1/1.1 Oktas while, average relative humidity observed as 41%. Mean day time temperature recorded 40.8°C & for the present season 198.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.8/1.1 Knots.

Tandojam (Lower Sindh)

Dry weather was reported during the week; however cloudiness in the morning/evening recorded 0.0/0.0 Oktas while, average relative humidity observed as 55%. Mean day time temperature recorded 41.1°C & for the present season 197.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 4.9/6.5 Knots.

Quetta (Northern Baluchistan)

Rainfall reported as 0.1mm during the week; however cloudiness in the morning/evening recorded 2.1/3.7 Oktas while, average relative humidity observed as 25%. Mean day time temperature recorded 31.8°C & for the present season 138.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.0/3.8 Knots.

Usta Muhammad (Eastern Balochistan)

Dry weather was reported during the week; however cloudiness in the morning/evening recorded 0.7/0.7 Oktas while, average relative humidity observed as 46%. Mean day time temperature recorded 45.9°C & for the present season 222.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.0/2.0 Knots.

Past Weather for Sub-Regional Agricultural Plains (from 9th to 15th May, 2016)

Multan

Dry weather was reported during the week; however cloudiness in the morning/evening recorded 1.7/3.4 Oktas while, average relative humidity observed as 40%. Mean day time temperature recorded 42.1°C & for the present season 202.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 4.6/4.3 Knots.

Lahore

Rainfall reported as 0.6mm during the week however cloudiness in the morning/evening recorded 0.4/1.4 Oktas while, average relative humidity observed as 34%. Mean day time temperature recorded 40.6°C & for the present season 189.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 7.4/4.3 Knots.

Zhob

Rainfall reported as 11.0mm during the week; however cloudiness in the morning/evening recorded 2.9/4.6 Oktas while, average relative humidity observed as 45%. Mean day time temperature recorded 33.6°C & for the present season 132.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 5.3/5.0 Knots.

D.I. Khan

Rainfall reported as 0.1mm during the week; however cloudiness in the morning/evening recorded 0.0/2.4 Oktas while, average relative humidity observed as 48%. Mean day time temperature recorded 41.3°C & for the present season 191.2 growing degree days accumulated by

the end of last week. Wind speed recorded in the morning/evening as 0.6/0.9 Knots.

Peshawar

Rainfall reported as 7.0mm during the week; however cloudiness in the morning/evening recorded 2.7/4.6 Oktas while, average relative humidity observed as 58%. Mean day time temperature recorded 36.2°C & for the present season 164.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.4/2.0 Knots.

Murree

Rainfall reported as 31.1mm during the week; however cloudiness in the morning/evening recorded 1.4/5.3 Oktas while, average relative humidity observed as 55%. Mean day time temperature recorded 24.4°C & for the present season 95.2 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.9/3.0 Knots.

Kalam

Rainfall reported as 28.0mm during the week; however cloudiness in the morning/evening recorded 2.6/6.0 Oktas while, average relative humidity observed as 58%. Mean day time temperature recorded 24.3°C & for the present season 77.2 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/1.4 Knots.

Gilgit

Rainfall reported as 4.0mm during the week; however cloudiness in the morning/evening recorded 5.1/5.6 Oktas while, average relative humidity observed as 49%. Mean day time temperature recorded 30.6°C & for the present season 111.1 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/3.7 Knots.

Skardu

Rainfall reported as 3.3mm during the week; however cloudiness in the morning/evening recorded 4.7/5.9 Oktas while, average relative humidity observed as 46%. Mean day time temperature recorded 26.9°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 0.0/4.0 Knots.

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.

Wheat: Good condition at *Milk Maturity* stage.

Central Punjab (Faisalabad)

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

Cotton: Normal condition at *Germination* stage.

Lower Sindh (Tandojam)

The fields of RAMC Tandojam are not yet prepared for the crop.

Northern Balochistan (Quetta)

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

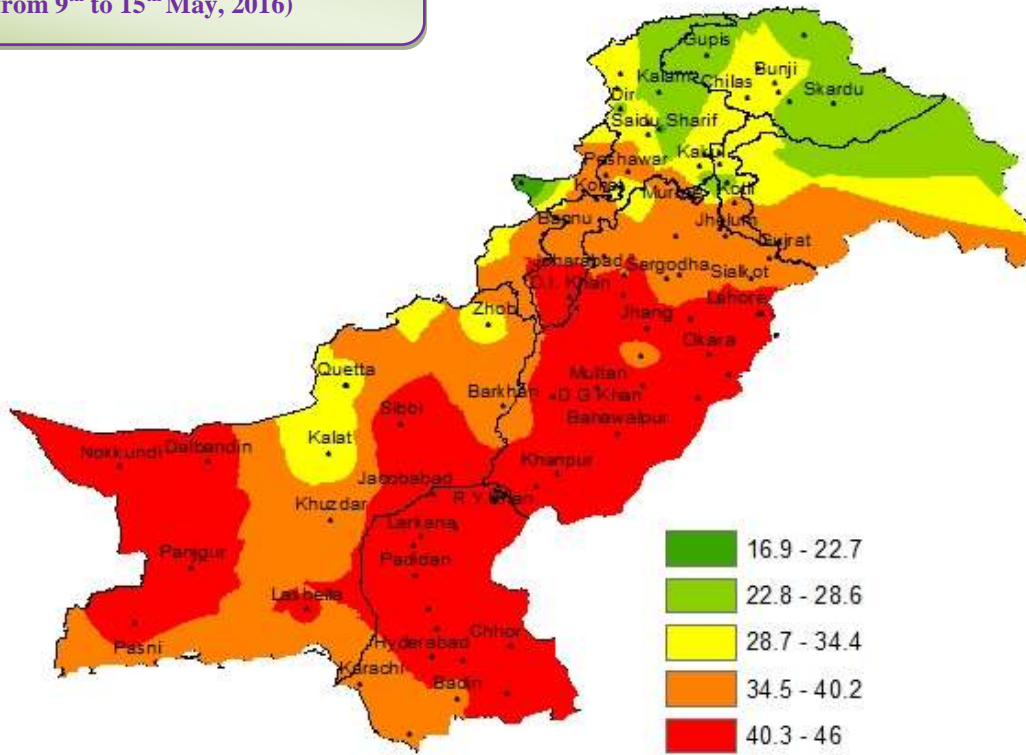
Wheat: Good condition at *Wax Maturity* stage.

Eastern Balochistan (Usta Muhammad)

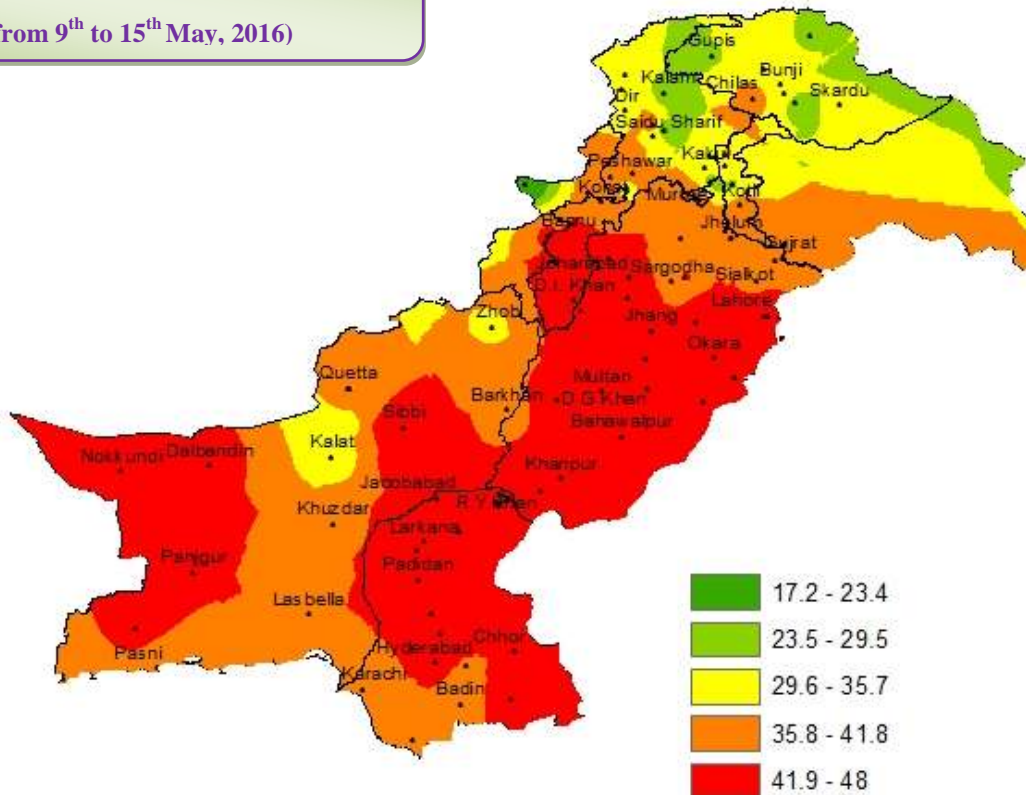
There is presently one crop (irrigated condition) grown in the fields of RAMC Usta Muhammad.

Wheat: Good condition at *Threshing* stage.

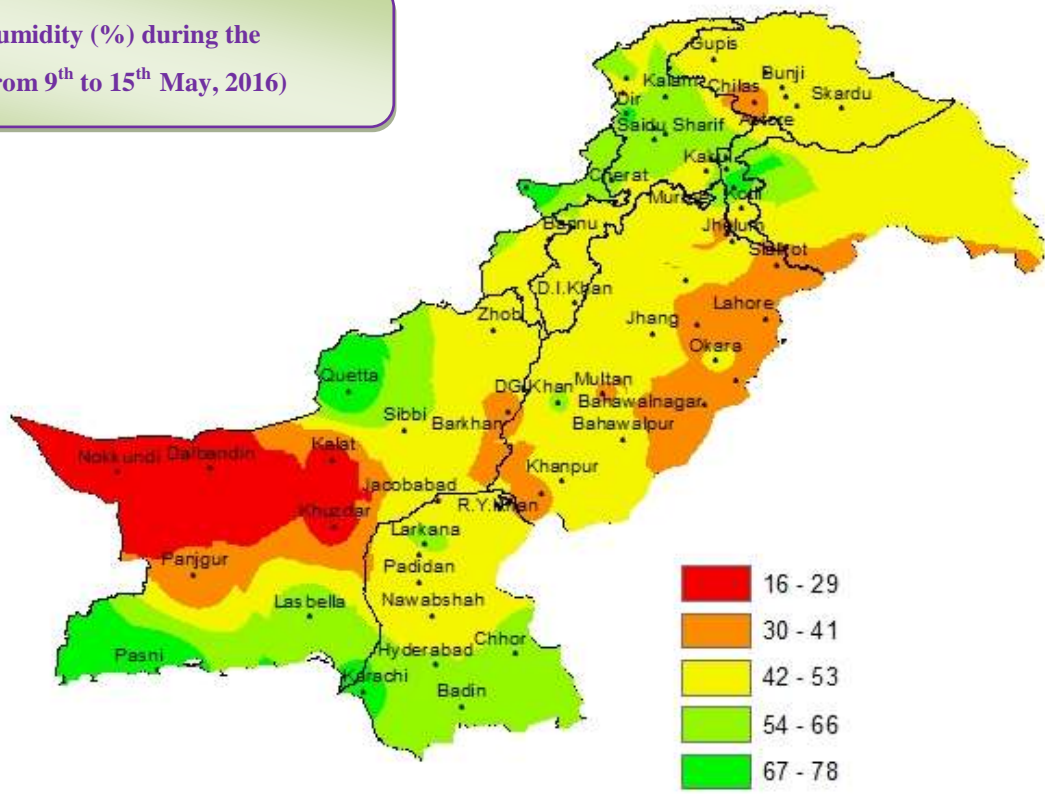
Mean Maximum Temperature (°C) during the Previous week (from 9th to 15th May, 2016)



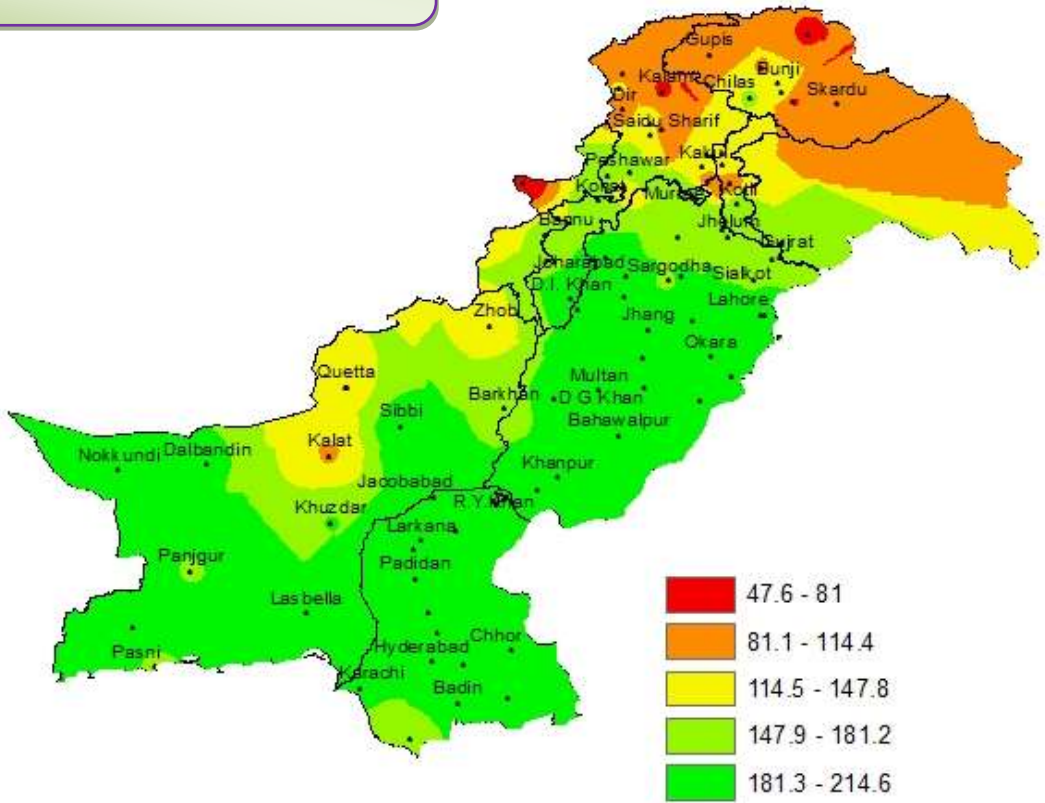
Highest Maximum Temperature (°C) during the Previous week (from 9th to 15th May, 2016)



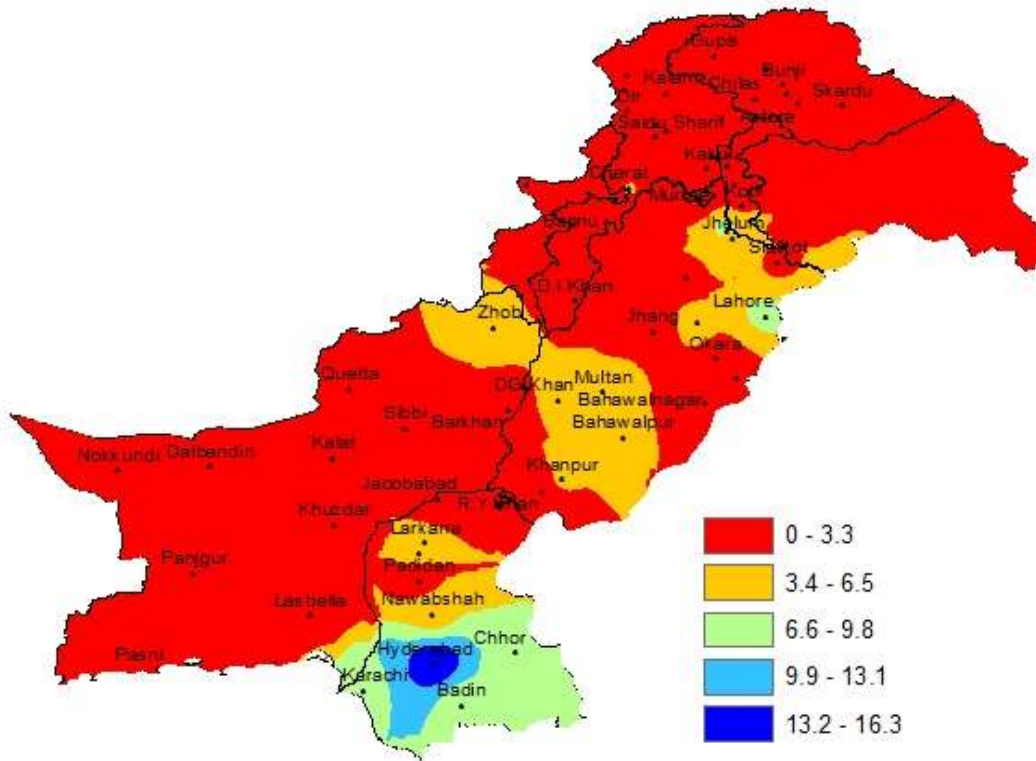
Mean Relative Humidity (%) during the Previous week (from 9th to 15th May, 2016)



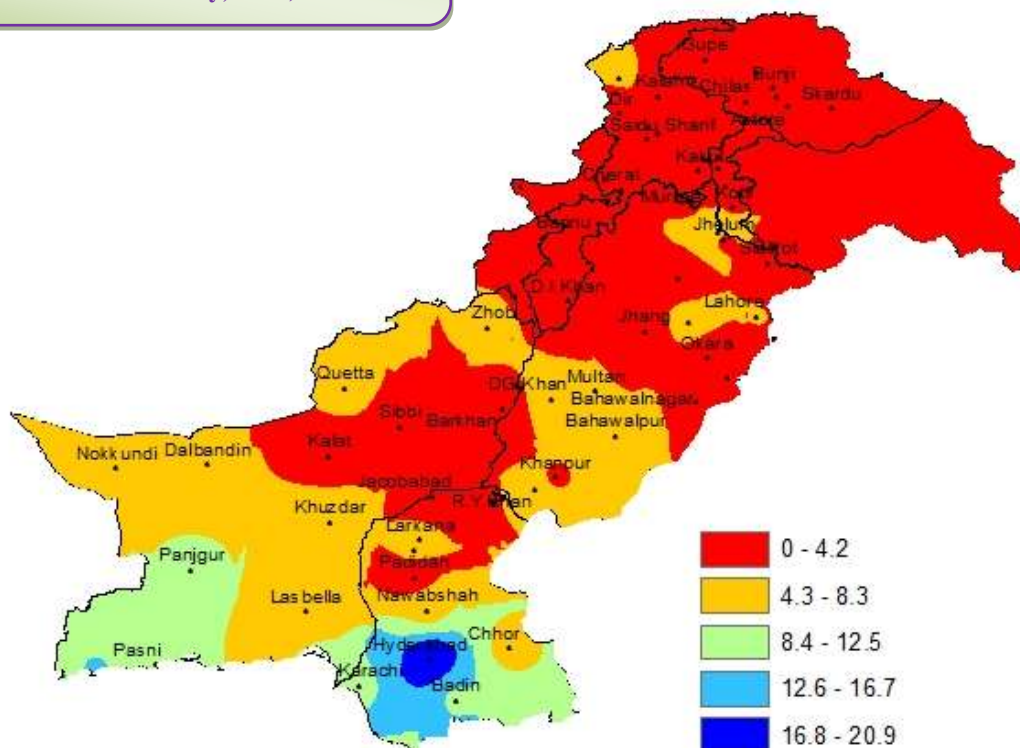
Total Growing Degree Days accumulated during the Previous week (from 9th to 15th May, 2016)



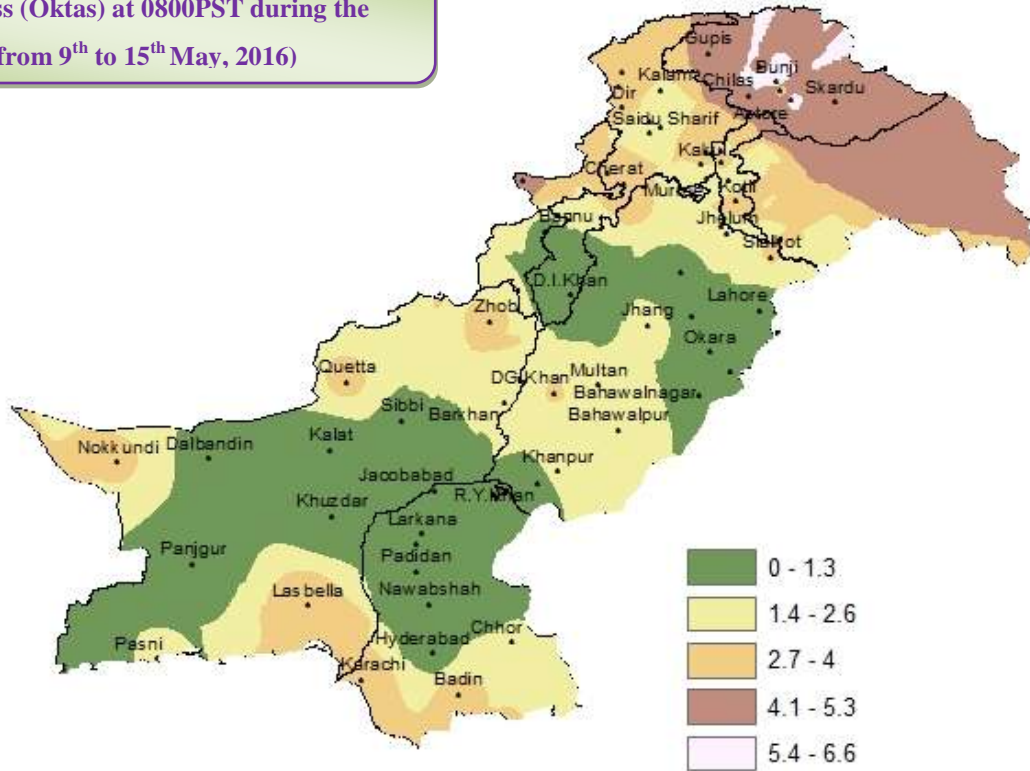
Mean Wind Speed (Knots) at 0300 PST during the Previous week (from 9th to 15th May, 2016)



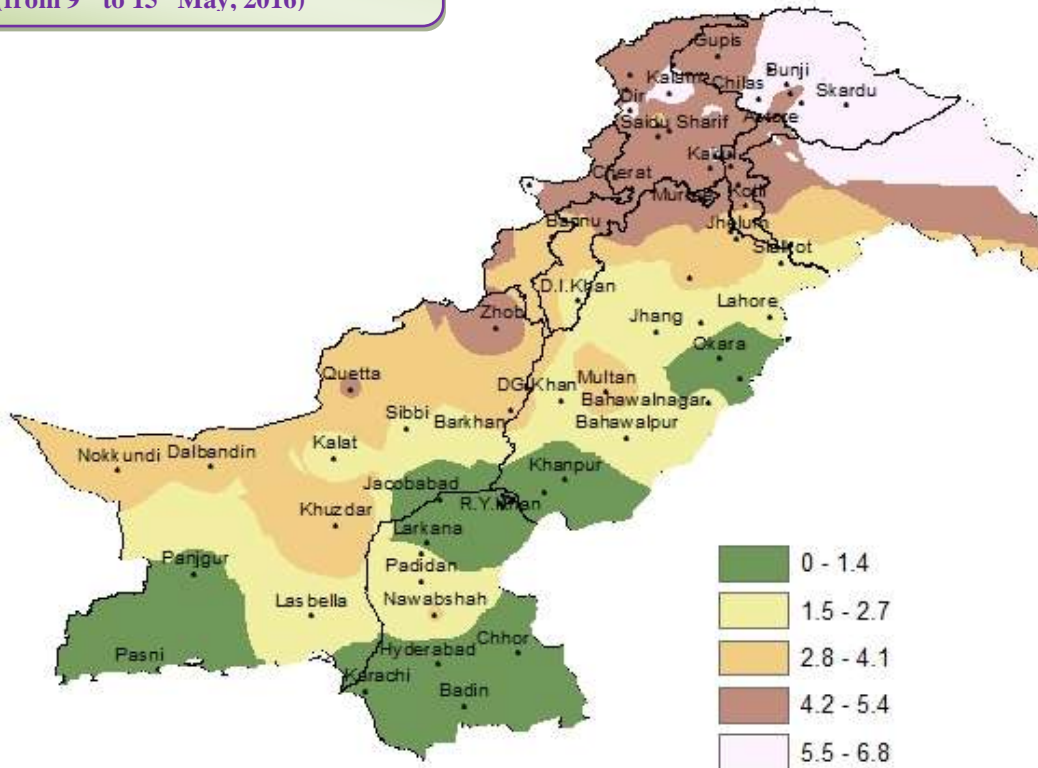
Mean Wind Speed (Knots) at 1200 PST during the Previous week (from 9th to 15th May, 2016)



Mean Cloudiness (Oktas) at 0800PST during the Previous week (from 9th to 15th May, 2016)



Mean Cloudiness (Oktas) at 1200 PST during the Previous week (from 9th to 15th May, 2016)



Weekly Weather Advisory for Farmers**(from 16th to 22nd May, 2016)**

Low pressure area lies over north Balochistan and its trough extending southeastwards. Continental air is expected to prevail over most parts of the country during coming week.

MONDAY**16-05-2016**

Mainly hot and dry weather is expected over most parts of the country. However, light rain-thunderstorm is expected at few places in Kashmir and its adjoining hilly areas. Very hot and dry weather would continue over plain areas of Punjab, KP, Sukkur, Larkana, Mirpurkhas, Shaheed Benazirabad, Sibbi and Makran divisions. Day temperatures are likely to remain above normal (2-4)°C in plain areas of the country. Day temperatures are likely to remain same due to sea breeze in coastal areas of the country including Karachi.

TUESDAY**17-05-2016**

Mainly hot and dry weather is expected over most parts of the country. Very hot and dry weather would continue over plain areas of Punjab, KP, Sukkur, Larkana, Mirpurkhas, Shaheed Benazirabad, Sibbi and Makran divisions. Day temperatures are likely to remain above normal (3-5)°C in plain areas of the country. Day temperatures are likely to remain same due to sea breeze in coastal areas of the country including Karachi.

WEDNESDAY**18-05-2016**

Mainly hot and dry weather is expected over most parts of the country. Very hot and dry weather would continue over plain areas of Punjab, KP, Sukkur, Larkana, Mirpurkhas, Shaheed Benazirabad, Sibbi and Makran divisions. Day temperatures are likely to remain above normal (3-5)°C in plain areas of the country. Day temperatures are likely to remain same due to sea breeze in coastal areas of the country including Karachi.

THURSDAY**19-05-2016**

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

FRIDAY**20-05-2016**

Very hot and dry weather is expected in most parts of the country. However, rain-thunderstorm is expected at few places in Kashmir and its adjoining hilly areas.

SATURDAY**21-05-2016**

Very hot and dry weather is expected in most parts of the country. However, rain-thunderstorm is expected at few places in Kashmir and its adjoining hilly areas.

SUNDAY**22-05-2016**

Very hot and dry weather is expected in most parts of the country. However, rain-thunderstorm is expected at few places in Kashmir and its adjoining hilly areas.

ADVISES FOR CROPS

- ❖ Pest attacks are expected over vegetables & tobacco crops after recent rains. Farmers are advised to take in time precautionary measures in this regard.
- ❖ Removing weeds from the standing crops is very important as weeds utilize moisture and food which may be utilized by the crop. As a result considerable loss in yield occurs every year. However operations against weeds should be started using weedicides or manually when the crop completely covers the fields.
- ❖ Due to hot and dry weather expected during the week, farmers are advised to complete wheat harvesting and other agriculture practices as soon as possible.

National Weather Data of Selected Cities
(Weekly Data from 9th to 15th May, 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	23.0	26.0	75.8	50	6.3	5.6	6.3	1.1	2.6
Badin	40.0	41.0	190.8	56	0.0	3.3	0.0	7.1	12.0
Bahawalnagar	43.8	46.0	208.9	35	0.1	0.9	1.4	0.9	3.7
Bahawalpur	41.8	42.7	201.3	42	0.0	2.0	1.7	3.7	5.1
Balakot	31.4	35.5	134.0	52	4.2	3.1	6.0	0.7	1.4
Bannu	39.4	42.8	160.1	44	36.0	1.0	3.4	0.9	3.7
Barkhan	36.7	39.0	163.1	39	15.0	2.0	3.0	0.0	2.3
Bunji	30.6	32.8	125.8	44	3.2	6.7	6.9	1.1	3.1
Cherat	30.2	33.0	126.4	50	29.0	3.0	4.7	3.4	3.1
Chhor	41.2	42.0	190.0	56	0.0	1.4	0.1	6.9	6.9
Chilas	33.9	37.0	151.3	34	5.1	5.1	5.6	1.4	2.6
Chitral	29.1	32.2	106.3	55	9.7	2.9	4.6	0.0	5.4
D.I.Khan	41.3	44.0	191.2	48	0.1	0.0	2.4	0.6	0.9
Dalbandin	41.5	44.0	185.0	18	0.0	0.9	2.9	2.3	4.9
DG.Khan	42.8	46.5	195.5	55	2.0	2.7	2.3	5.1	6.0
Dir	27.9	33.0	97.0	69	51.0	2.7	5.7	0.6	1.9
Drosh	31.1	35.4	118.3	46	6.8	3.4	4.7	1.1	3.7
Faisalabad	40.8	43.0	198.3	41	0.1	1.1	1.1	1.8	1.1
Garidopatta	33.4	35.5	140.7	66	40.0	3.0	4.6	0.3	2.3
Gawader	36.8	37.0	182.2	72	0.0	0.4	0.0	0.0	13.1
Gilgit	30.6	34.5	111.1	49	4.0	5.1	5.6	0.0	3.7
Gupis	25.4	29.0	92.2	46	14.0	4.4	4.1	3.1	3.4

Hyderabad	40.3	42.5	194.4	55	0.0	0.5	0.0	16.3	20.9
Islamabad	36.2	38.3	154.0	50	4.2	2.1	4.3	0.3	3.1
Jacobabad	44.7	46.5	214.6	41	0.0	0.0	0.4	2.0	2.0
Jhang	41.2	43.5	183.4	45	2.8	1.6	1.4	2.0	2.0
Jhelum	39.7	42.0	181.2	44	9.3	1.7	3.9	4.3	2.3
Jiwani	36.3	37.0	182.3	68	0.0	0.6	0.7	2.1	10.0
Kakul	31.1	33.0	124.3	50	1.0	2.7	4.9	0.3	1.7
Kalam	24.3	27.5	77.2	58	28.0	2.6	6.0	0.0	1.4
Kalat	31.0	33.0	112.8	24	0.0	0.0	2.3	0.0	1.4
Karachi	35.5	36.5	182.2	68	0.0	3.7	0.7	8.6	11.7
Khanpur	42.5	45.0	201.0	44	0.0	2.6	1.0	3.4	4.0
Khuzdar	37.6	39.0	181.9	26	0.0	0.0	4.0	0.0	8.0
Kotli	36.0	38.1	163.6	44	9.0	3.3	4.0	2.7	3.7
Lahore	40.6	41.7	189.3	34	0.6	0.4	1.4	7.4	4.3
Larkana	43.3	45.0	207.7	61	0.0	0.6	0.7	3.7	4.9
Lasbella	40.4	41.5	195.2	62	0.0	3.7	2.1	0.6	6.3
Lower Dir	35.4	39.0	148.5	58	6.0	2.6	3.6	0.0	2.0
M.B Din	39.9	42.0	184.3	41	10.5	0.7	3.0	1.7	1.7
Malam Jabba	20.4	22.0	76.2	60	3.0	2.6	4.9	1.6	0.9
Mangla	38.4	40.5	176.8	38	3.7	2.7	4.0	8.0	9.4
Mir Khani	32.6	35.0	134.5	52	6.0	3.1	3.9	0.4	2.0
Moinjodaro	43.8	46.0	199.2	44	0.0	0.3	1.9	3.7	4.6
Multan	42.1	44.2	202.8	40	0.0	1.7	3.4	4.6	4.3
Murree	24.4	27.0	95.2	55	31.1	1.4	5.3	1.9	3.0
Muzaffarabad	32.5	35.4	133.3	59	13.0	3.3	4.3	0.0	1.9
Nawabshah	45.5	47.0	204.3	41	0.0	0.4	2.9	4.7	6.9

Nokkundi	42.3	44.5	200.4	16	0.0	2.9	3.0	2.0	6.0
Okara	41.0	44.0	192.6	42	6.0	1.1	1.0	2.3	1.7
Padidan	43.6	45.5	210.6	45	0.1	0.4	1.4	2.3	2.6
Panjgur	40.4	42.0	180.5	31	0.0	0.0	1.1	0.0	9.4
Parachinar	16.9	17.2	47.4	78	96.5	4.7	5.6	3.0	3.0
Pasni	35.4	36.0	176.2	76	0.0	1.7	0.0	0.9	8.9
Pattan	32.8	35.8	143.7	57	23.1	2.3	4.9	0.0	1.4
Peshawar	36.2	40.6	164.5	58	7.0	2.7	4.6	1.4	2.0
Quetta	31.8	34.2	138.3	25	0.1	2.1	3.7	2.0	3.8
R.Y.Khan	44.1	46.4	204.4	40	0.0	0.1	0.4	2.6	4.9
Rawalakot	26.7	29.0	94.7	77	14.8	1.9	5.4	0.3	1.4
Rawalpindi	37.1	39.0	177.7	48	0.6	1.6	3.0	0.3	1.6
Sahiwal	41.8	43.8	190.4	41	0.0	0.3	1.3	1.4	2.6
Saidu Sharif	32.7	36.0	133.4	57	5.8	2.4	5.0	0.6	0.0
Sialkot	38.9	40.2	176.7	40	18.0	2.7	2.1	2.6	2.3
Sibbi	46.0	48.0	209.5	53	0.0	0.9	2.6	2.0	2.0
Skardu	26.9	30.4	90.5	46	3.3	4.7	5.9	0.0	4.0
Tandojam	41.1	42.5	197.0	55	0.0	0.0	0.0	4.9	6.5
Usta.M	45.9	47.5	222.3	46	0.0	0.7	0.7	2.0	2.0
Zhob	33.6	35.0	132.8	45	11.0	2.9	4.6	5.3	5.0

*** Shows that data was not available.

Findings of AgMIPPakistan, 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)