

[http://namc.pmd.gov.pk/dekadal\\_bulletin/820122.pdf](http://namc.pmd.gov.pk/dekadal_bulletin/820122.pdf)

# Decadal Agromet Bulletin of Pakistan



## Highlights....

- Light to moderate rainfall with thundershower occurred in most of the agricultural plains of the country except Sindh during the last decade, highest value recorded at Rawalpindi as 125 mm.
- Extreme temperatures (above 40°C) recorded in upper Sindh & Eastern Balochistan.
- Highest values for the relative humidity (above 60%) recorded at scattered places in upper and northeastern Punjab, upper and southern KP and lower Sindh.
- Highest values for ETo (above 6.0 mm/day) recorded in Sindh and Southern Punjab.
- Maximum temperatures are expected to be normal/below normal in most of the agricultural plains of the country during the next decade.
- Mainly hot & humid weather is expected during the next decade all over the country except Kashmir & Gilgit Baltistan region. However, rain/thundershower is expected in 1<sup>st</sup> half in most parts of the country and last two days in upper parts of the country during next decade.

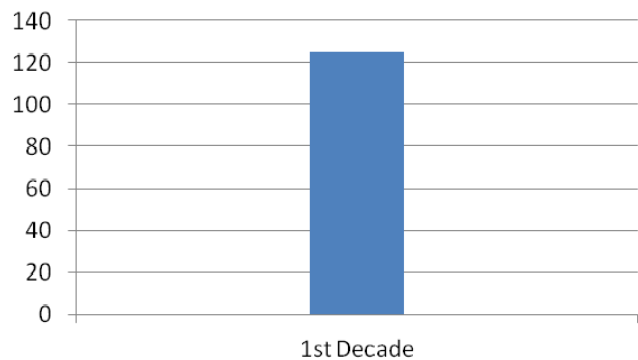
**NATIONAL AGROMET CENTRE (NAMC)  
PAKISTAN METEOROLOGICAL DEPARTMENT  
SECTOR H-8/2, ISLAMABAD**

[http://www.pmd.gov.pk/WFF/weather\\_for\\_farmers](http://www.pmd.gov.pk/WFF/weather_for_farmers)

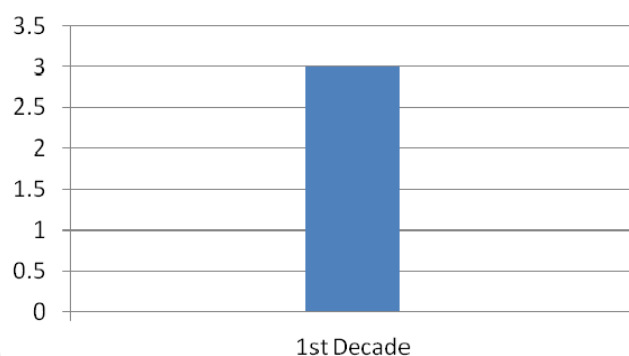
Phone: +92-51-9250592 email: dirnamc@yahoo.com

## Graphs for Rainfall (mm) during August 2012

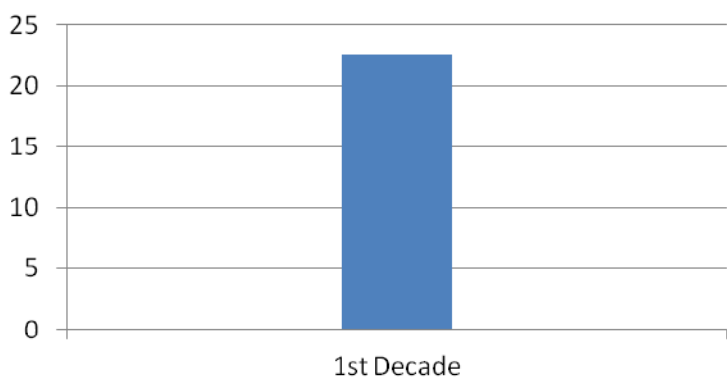
### RAMC, RAWALPINDI



### RAMC, FAISALABAD



### RAMC, QUETTA



**Note: No Rainfall recorded at RAMC Tandojam & Usta Muhammad.**

Meteorological conditions during 1<sup>st</sup> decade of August, 2012

Sr. No.	Station	Precipitation (mm)			Air Temperature (°c)			Soil Temperatures (°c)						Sunshine Duration (hours)	Wind Speed (km/hr)	R.H (%)	ETo (mm/day)
		Normal	Actual	Dep	Tmin Dep	Tmax Dep	Mean	5cm	10cm	20cm	30cm	50cm	100cm				
1	TANDOJAM	2.5	0.0	-2.5	0.2	1.1	31.3	39.7	36.4	35.2	33.8	33.6	31.6	89.8	9.0	62	6.2
2	SAKRAND ☆	3.9	0.0	-3.9	-5.1	3.1	31.8	45.1	44.1	44.8	37.3	37.9	35.3	101.1	6.3	53	6.3
3	ROHRI	2.8	0.0	-2.8	-0.7	3.2	34.1	47.3	43.6	38.6	37.7	36.6	36.3	97.4	4.7	49	6.2
4	USTA MUHAMMAD	0.0	0.0	0.0	1.8	1.6	33.8	39.8	39.9	38.9	39.1	35.4	33.5	***	4.4	58	5.7
5	QUETTA	0.0	22.5	22.5	-3.4	-1.0	25.5	35.5	33.3	29.4	22.2	27.8	28.6	87.9	5.6	30	5.6
6	KHANPUR	10.7	0.0	-10.7	0.1	2.3	33.2	39.0	38.3	37.8	37.8	38.0	36.2	88.8	6.8	60	6.1
7	MULTAN	3.8	0.0	-3.8	0.5	1.2	33.9	***	***	***	***	***	***	84.5	7.1	44	6.4
8	LAHORE	5.0	110.0	105.0	-1.3	0.7	30.7	35.8	35.0	33.1	32.4	***	31.1	70.2	3.8	68	4.7
9	FAISALABAD	5.3	3.0	-2.3	0.8	1.3	32.7	40.7	39.0	36.2	34.6	33.7	32.0	80.1	6.0	55	5.7
10	SARGODHA	1.6	16.0	14.4	0.6	0.8	32.7	38.5	37.0	35.2	34.3	34.1	32.2	77.5	4.1	62	5.2
11	JHELUM	9.0	82.4	73.4	-0.2	0.3	30.4	34.7	33.6	32.4	31.9	32.3	***	65.3	3.2	70	4.5
12	RAWALPINDI	13.9	125.0	111.1	0.9	1.7	29.4	34.2	32.9	31.5	31.6	31.0	30.7	95.4	2.7	66	5.1
13	DI KHAN	4.6	64.7	60.1	0.6	1.1	32.3	***	***	***	***	***	***	96.4	4.8	62	5.8
14	PESHAWAR	3.3	TR	-3.3	0.1	2.8	32.3	42.7	35.9	35.0	34.5	32.6	30.6	60.4	1.0	60	4.1
15	SKARDU	0.4	3.1	2.7	-0.9	-2.4	23.0	***	***	***	***	***	***	48.8	3.4	42	3.9
16	GILGIT	0.4	9.0	8.6	1.6	-1.1	26.2	***	***	***	***	***	***	63.8	5.6	52	4.9

Table-1: Meteorological parameters for selected station of Pakistan. "Dep" in the table stands for difference from climatic normal, i.e. actual value minus normal. And "% Dep" is calculated by the formula; Dep divided by Normal multiplied by 100. Tmin & Tmax stands for minimum and maximum temperatures respectively. ETo stands for reference crop evapotranspiration. \*\*\* stands for no data and (☆) indicates the station with five years climatic (normal) data for computing departures.

### Past Weather (1<sup>st</sup> to 10<sup>th</sup> August, 2012):

Light to moderate rainfall with few heavy showers reported from the agricultural plains of Punjab, KP, Balochistan and Kashmir, while light to moderate rainfall reported from agricultural plains of Sindh during the decade.

#### 1.1 Punjab

Light to moderate rainfall with few heavy falls reported from the agricultural plains of Punjab during the decade, chief amount received at Gujranwala, Murree and Mangla (Fig. 1.a). Decadal maximum temperature and minimum temperature both raised above normal by 1.2 & 0.2°C respectively, in the province. Mean values of wind speed, relative humidity and ETo were recorded as 4.8 km/hr, 61 %, and 5.4 mm/day respectively (Fig 3-4).

#### 1.2 Sindh

Light to moderate rainfall reported from few agricultural plains of Sindh during the decade, chief amount received at Nawabshah, Chhor and Moenjodaro etc. Decadal maximum temperature raised above normal by 2.5°C and minimum temperature dropped below normal by 1.9°C respectively, in the province. Mean values of wind speed, relative humidity and ETo were recorded as 6.7 km/hr, 55 %, and 6.2 mm/day respectively.

#### 1.3 Khyber Pakhtoon Khawa (KPK)

Light to moderate rainfall with few heavy falls reported from the agricultural plains of KPK; chief amount received at Dir, Kakul and D I Khan etc. Decadal maximum and minimum temperature both raised above normal by 2.0 & 0.4°C respectively, in the province. Mean values of wind speed, relative humidity and ETo were recorded as 2.9 km/hr, 61 %, and 5.0 mm/day respectively.

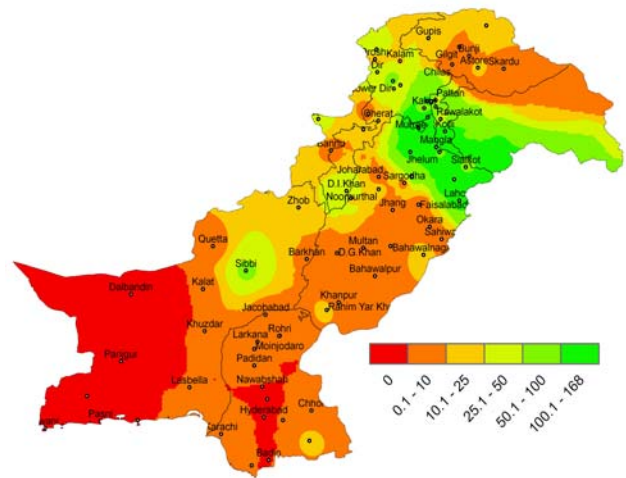
#### 1.4 Balochistan

Light to moderate rainfall reported from few agricultural plains of Balochistan; chief amount received at Sibbi, Zhob and Barkhan etc. In the northern Balochistan, decadal maximum temperature raised above normal by 0.3°C and minimum temperature dropped below normal by 0.8°C respectively. Whereas mean values of wind speed, relative humidity and ETo were recorded 5.0 km/hr, 44 %, and 5.7 mm/day respectively.

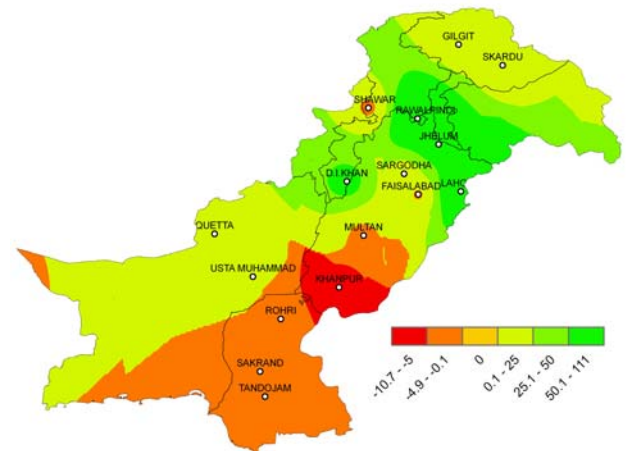
#### 1.5 Gilgit Baltistan and Azad Jammu & Kashmir

Light to moderate rainfall reported from most of the agricultural plains of Gilgit Baltistan and light to moderate rainfall with few heavy showers reported from Azad Jammu & Kashmir; chief amount received at Kotli, Muzaffarabad and Garhi Dopatta etc. In GB & AJK region; decadal maximum temperature dropped below normal by 1.8 and decadal minimum temperature raised above normal by 0.4°C respectively. Whereas mean values of wind speed, relative

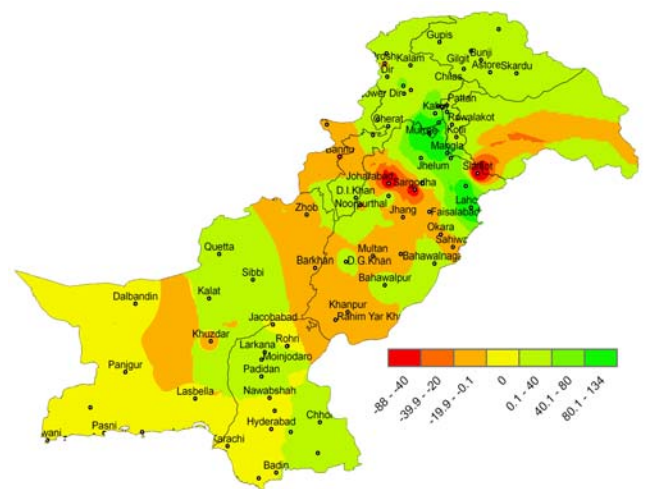
humidity and ETo were recorded as 4.5 km/hr, 47 %, and 4.4 mm/day respectively.



a) Actual rainfall



b) Departure of rainfall from Normal



c) Departure of rainfall from Previous Decade

Figure.1: Rainfall distribution during previous decade in “mm”

**2 (a) Past Weather for Major Agricultural Plains (1<sup>st</sup> to 10<sup>th</sup> August, 2012) as per Table-1**

**2.1 RAMC, Rawalpindi (Potohar region)**

Rainfall reported as 125.0 mm during the decade, weather remained cloudy for 8 days and average relative humidity recorded as 66%. Mean night temperature was 24.6°C while day temperature recorded as 34.2°C with 95.4 hours bright sunshine duration. Wind speed recorded as 2.7 Km/hr with mean direction *westerly*. Presently one crop (rainfed conditions) is grown at the station as detailed below:

Maize: Poor condition, Emergence stage.

**2.2 RAMC, Tandojam (Lower Sindh)**

No rainfall reported during the decade, weather remained cloudy for 5 days and average relative humidity recorded as 62%. Mean night temperature was 26.1°C while day temperature recorded as 36.5°C with 89.8 hours bright sunshine duration. Wind speed recorded as 9.0 Km/hr with mean direction *south westerly*. Presently only one crop (irrigated conditions) is grown at the station as detailed below:

Cotton (BT-886): Good condition, Boll opening stage.

**2.3 RAMC, Faisalabad (Central Punjab)**

Rainfall reported as 3.0 mm during the decade, weather remained cloudy for 8 days and average relative humidity recorded as 55%. Mean night temperature was 27.7°C while day temperature recorded as 37.6°C with 80.2 hours bright sunshine duration. Wind speed recorded as 6.0 Km/hr with mean direction *north easterly*. Presently one crop (irrigated conditions) is grown at the station as detailed below:

Sugarcane: Very Good condition, Tillering stage completed.

Cotton: Very Good condition, Flowering stage.

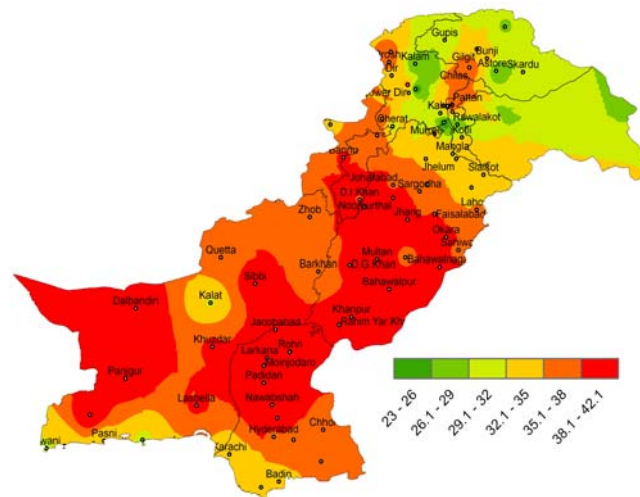
**2.4 RAMC, Quetta (Northern Balochistan)**

Rainfall reported as 22.5 mm during the decade, weather remained cloudy for 2 days and average relative humidity recorded as 30%. Mean night temperature was 17.1°C while day temperature recorded as 33.8°C with 87.9 hours bright sunshine duration and wind speed recorded as 5.6 Km/hr with mean direction *north westerly*. Presently no crop is grown at the station.

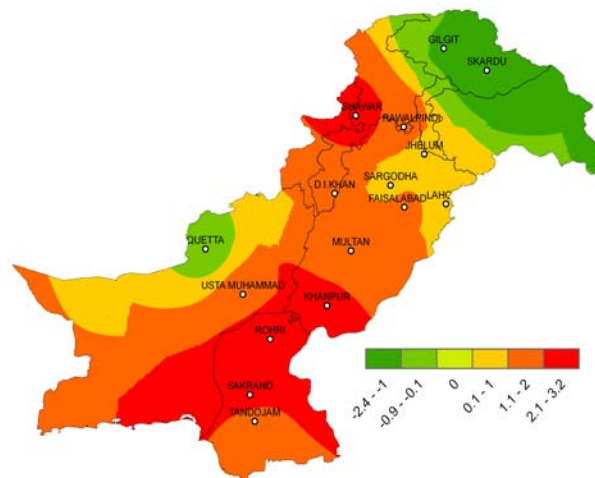
**2.5 RAMC, Usta Muhammad (Eastern Balochistan)**

No rainfall reported during the decade, weather remained cloudy for 2 days and average relative humidity recorded as 58%. Mean night temperature was 27.3°C while day temperature recorded as 40.3°C. Wind speed recorded as 4.4 Km/hr with mean direction *southerly*. Presently one crop (Irrigated conditions) is grown at the station as detailed below:

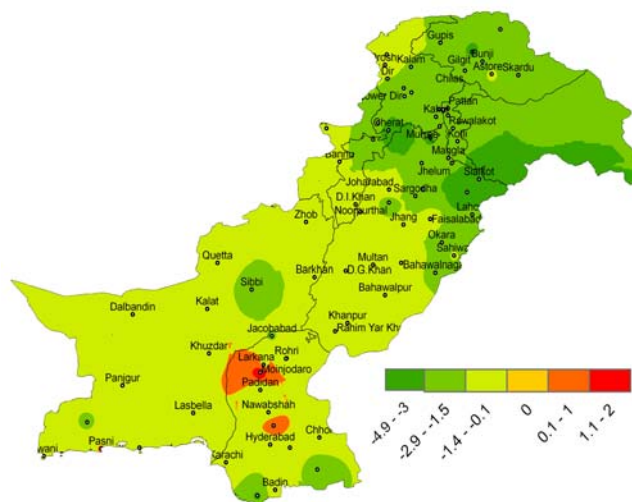
Rice: Good condition, Third Leaf completed.



a) Actual max-temp



b) Departure of max-temp from Normal



c) Departure of max-temp from Previous Decade

Figure.2: Maximum Temperature distribution during previous decade in “°C”



**2(b) Past Weather for sub regional Agricultural Plains (1<sup>st</sup> to 10<sup>th</sup> August, 2012)**

**2.6 Rohri**

No rainfall reported during the decade, weather remained cloudy for 7 days and average relative humidity recorded as 49%. Mean night temperature was 27.4°C while day temperature recorded as 40.7°C with 97.4 hours bright sunshine duration. Wind speed recorded as 4.7 Km/hr with mean direction *south easterly*.

**2.7 Skardu**

Rainfall reported as 3.1 mm during the decade, weather remained cloudy for 7 days and average relative humidity recorded as 42%. Mean night temperature was 15.8°C while day temperature recorded as 30.1°C with 48.8 hours bright sunshine duration. Wind speed recorded as 3.4 Km/hr with mean direction *south easterly*.

**2.8 Multan**

No rainfall reported during the decade, weather remained cloudy for 8 days and average relative humidity recorded as 44%. Mean night temperature was 28.9°C while day temperature recorded as 38.8°C with 84.5 hours bright sunshine duration. Wind speed recorded as 7.1 Km/hr with mean direction *southerly*.

**2.9 Lahore**

Rainfall reported as 110.0 mm during the decade, weather remained cloudy for 10 days and average relative humidity recorded as 68%. Mean night temperature was 26.1°C while day temperature recorded as 35.3°C with 70.2 hours bright sunshine duration. Wind speed recorded as 3.8 Km/hr with mean direction *south easterly*.

**2.10 Peshawar**

Rainfall reported as Trace (amount not measurable) during the decade, weather remained cloudy for 10 days and average relative humidity recorded as 60%. Mean night temperature was 26.6°C while day temperature recorded as 38.0°C with 60.4 hours bright sunshine duration. Wind speed recorded as 1.0 Km/hr with mean direction *north-north easterly*.

**2.11 Khanpur**

No Rainfall reported during the decade, weather remained cloudy for 6 days and average relative humidity recorded as 60%. Mean night temperature was 27.6°C while day temperature recorded as 38.7°C with 88.8 hours bright sunshine duration. Wind speed recorded as 6.8 Km/hr with mean direction *south westerly*.

**2.12 Sargodha**

Rainfall reported as 16.0 mm during the decade, weather remained cloudy for 10 days and average relative humidity recorded as 62%. Mean night temperature was 27.9°C while day temperature recorded as 37.5°C with 77.5 hours bright

sunshine duration. Wind speed recorded as 4.1 Km/hr with mean direction *easterly*.

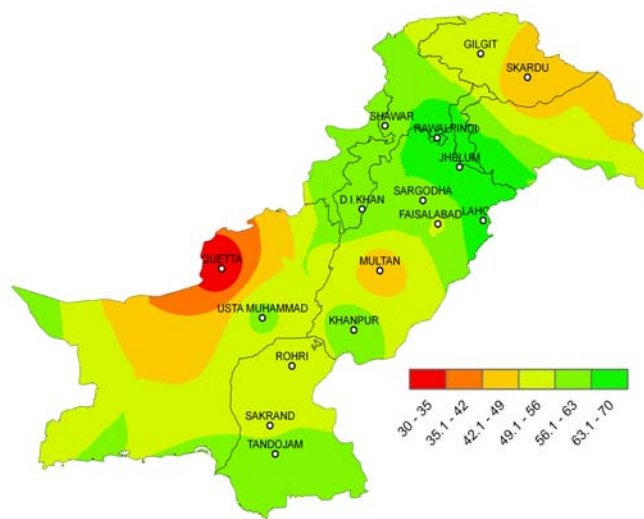


Figure.3: Relative Humidity in percentage

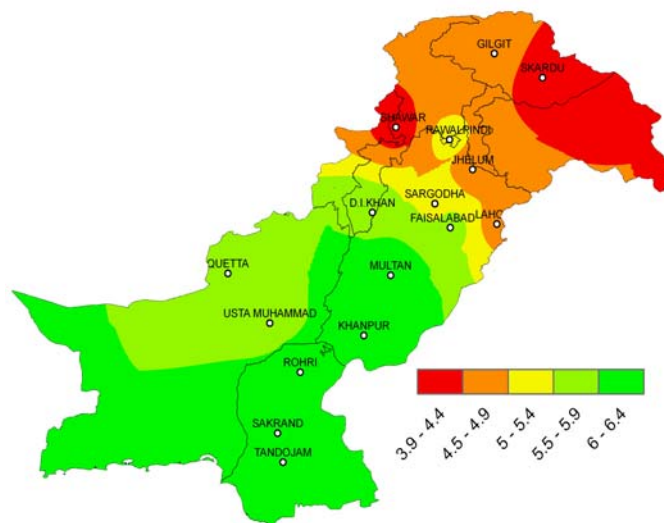


Figure.4: Reference Crop Evapotranspiration “ETo” in mm/day

**2.13 Gilgit.**

Rainfall reported as 9.0 mm during the decade however weather remained cloudy for 10 days and average relative humidity recorded as 52%. Mean night temperature was 18.7°C while day temperature recorded as 33.7°C with 63.8 hours bright sunshine. Wind speed recorded as 5.6 Km/hr with mean direction *westerly*.

**2.14 Jhelum**

Rainfall reported as 82.4 mm during the decade however weather remained cloudy for 10 days and average relative humidity recorded as 70%. Mean night temperature was 25.7°C while day temperature recorded as 35.1°C with 65.3 hours bright sunshine duration. Wind speed recorded as 3.2 Km/hr with mean direction *south easterly*.

## 2.15 D.I. Khan

Rainfall reported as 64.7 mm during the decade, weather remained cloudy for 4 days and average relative humidity recorded as 62%. Mean night temperature was 26.8°C while day temperature recorded as 37.8°C with 96.4 hours bright sunshine duration. Wind speed recorded as 4.8 Km/hr with mean direction *south easterly*.

## 2.16 Sakrand

No rainfall reported during the decade however weather remained cloudy for 6 days average relative humidity recorded as 53%. Mean night temperature was 24.7°C while day temperature recorded as 38.9°C with 101.1 hours bright sunshine duration. Wind speed recorded as 6.3 Km/hr with mean direction *southerly*.

## 3. Ten days Weather advisory for Farmers (11<sup>th</sup> to 20<sup>th</sup> August, 2012)

### 3.1 Temperature Forecast:

Day time temperatures expected to be normal/below normal in most of the agricultural plains of the country during the decade.

### 3.2 Rain Forecast:

- ❖ **Punjab:** Mainly hot & humid weather is expected during the decade. However isolated rain/thundershower is expected in upper & central Punjab on 11<sup>th</sup> August and scattered rain/thundershower is expected in agricultural plains of the province during 12<sup>th</sup> to 15<sup>th</sup> August. Rain/thundershower is also expected at isolated places of upper Punjab on 19<sup>th</sup>/20<sup>th</sup> August.
- ❖ **Khyber Pakhtoonkhawa:** Mainly hot & humid weather is expected during the decade. However isolated rain/thundershower is expected in the agricultural plains of the province during 11<sup>th</sup> to 15<sup>th</sup> August.
- ❖ **Sindh:** Mainly hot & humid weather is expected during the decade. However light to moderate rain/thundershower is expected in southeastern & upper parts of the province during 12<sup>th</sup> to 15<sup>th</sup> August.
- ❖ **Balochistan:** Mainly dry weather is expected during the decade. However rain/dust-thunderstorm is expected at isolated places in the eastern parts of the province during 11<sup>th</sup> to 15<sup>th</sup> August.
- ❖ **Kashmir & Gilgit-Baltistan:** Mainly partly cloudy to cloudy weather is expected during the decade. However rain/thundershower with few heavy falls is expected at isolated to scattered places of Kashmir during 11<sup>th</sup> to 15<sup>th</sup> August & isolated chances from 16<sup>th</sup> to 20<sup>th</sup> August and rainfall expected at isolated places of Gilgit Baltistan during the decade.

### 3.3 Wind Forecast:

Gusty winds may prevail occasionally in the monsoon belt and adjoining areas during the decade.

### 3.4 Advisory for Farmers:

- ❖ Farmers are advised to take in time necessary precautionary measures to protect their crops, livestock and other property to keep in mind with current situation of monsoon.
- ❖ Due to hot & humid weather expected in southern half of the country, farmers are advised to irrigate the crops as per requirement.
- ❖ Farmers of rainfed areas, obtaining crop water through tube wells are also advised to schedule the irrigation according to the expected weather mentioned above during the decade.
- ❖ During the dry & humid weather in monsoon season, farmers of cotton belt are advised to take in time precautionary measures to protect the crop from the pest attacks especially attack of Melay Bug, Jassid, Thrips & Whitefly during the period.
- ❖ Recent rains in upper half may accelerate weeds growth in standing crops. Farmers should take in time precautionary measures through manual methods or chemical spraying to control weeds on time.