

DECADAL AGROMET BULLETIN OF PAKISTAN



3rd Decade July, 2012



Regional Agromet Centre, Tandojam, located in lower Sindh

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

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Meteorological conditions during 2nd decade of July, 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 | 1.6 | 0.0 | -1.6 | 0.9 | 0.7 | 32.1 | *** | 37.3 | 35.5 | 34.4 | 33.9 | 31.6 | 78.6 | 7.9 | 63 | 5.8 |
| 2 | SAKRAND ☆ | 2.0 | 0.0 | -2.0 | -0.2 | 1.6 | 33.5 | 46.0 | 45.2 | 46.2 | 37.7 | 38.2 | 34.9 | 105.1 | 5.1 | 53 | 7.4 |
| 3 | ROHRI | 0.2 | 0.0 | -0.2 | 0.4 | 0.9 | 36.0 | 49.5 | 45.6 | 40.0 | 38.7 | 37.3 | 36.0 | 108.0 | 6.9 | 47 | 7.4 |
| 4 | USTA MUHAMMAD | 0.0 | 0.0 | 0.0 | -0.1 | 0.2 | 35.6 | 44.7 | 43.4 | 40.3 | 39.3 | 37.9 | 36.6 | *** | 5.5 | 48 | 6.7 |
| 5 | QUETTA | 0.2 | 0.0 | -0.2 | -1.2 | -0.2 | 27.9 | 40.1 | 36.5 | 31.8 | 24.5 | 29.5 | 28.7 | 108.9 | 6.8 | 27 | 6.7 |
| 6 | KHANPUR | 0.6 | 0.0 | -0.6 | -0.4 | 0.0 | 34.1 | 39.5 | 39.3 | 38.8 | 38.7 | 38.9 | 36.7 | 96.6 | 3.9 | 55 | 6.8 |
| 7 | MULTAN | 1.4 | 21.2 | 19.8 | 0.2 | 0.9 | 34.6 | *** | *** | *** | *** | *** | *** | 94.0 | 6.6 | 56 | 6.6 |
| 8 | LAHORE | 7.2 | 33.9 | 26.7 | -0.7 | 1.8 | 31.8 | 38.7 | 37.3 | 34.0 | 32.8 | *** | 30.9 | 89.9 | 4.2 | 57 | 5.7 |
| 9 | FAISALABAD | 4.9 | 23.0 | 18.1 | 0.7 | -0.4 | 32.1 | 36.1 | 35.2 | 33.3 | 32.5 | 32.0 | 31.4 | 81.2 | 6.8 | 61 | 5.9 |
| 10 | SARGODHA | 4.0 | 61.3 | 57.3 | -1.4 | -1.6 | 31.4 | 35.1 | 33.8 | 32.6 | 32.4 | 32.4 | 32.0 | 79.3 | 2.8 | 64 | 5.0 |
| 11 | JHELUM | 7.3 | 74.7 | 67.4 | -1.1 | 0.7 | 31.1 | 35.9 | 37.6 | 33.3 | 32.9 | 33.3 | *** | 86.0 | 5.3 | 61 | 5.6 |
| 12 | RAWALPINDI | 10.2 | 36.7 | 26.5 | 1.3 | 0.9 | 30.9 | 36.8 | 35.0 | 33.2 | 32.9 | 32.0 | 30.1 | 91.2 | 2.8 | 53 | 5.3 |
| 13 | DI KHAN | 1.8 | 5.7 | 3.9 | -0.8 | -0.2 | 31.8 | *** | *** | *** | *** | *** | *** | 96.4 | 4.8 | 58 | 5.9 |
| 14 | PESHAWAR | 1.4 | TR | -1.3 | -1.1 | 0.9 | 32.0 | 41.0 | 35.9 | 34.6 | 33.4 | 31.7 | 29.7 | 87.9 | 3.0 | 53 | 5.4 |
| 15 | SKARDU | 0.3 | 0.0 | -0.3 | -0.8 | -1.8 | 22.6 | *** | *** | *** | *** | *** | *** | 59.4 | 9.2 | 35 | 5.5 |
| 16 | GILGIT | 0.3 | 0.5 | 0.2 | 0.4 | -0.2 | 26.5 | *** | *** | *** | *** | *** | *** | 83.9 | 3.7 | 41 | 5.8 |

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; $\text{Dep} \div \text{Normal} \times 100$. 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 (11th to 20th July, 2012)

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

1.1 Punjab

Light to moderate rainfall with few heavy falls reported from most of the agricultural plains of Punjab during the decade, chief amount received at Jhelum, Islamabad and T.T Singh etc (Fig. 1.a). Decadal maximum temperature raised above normal by 0.3°C and minimum temperature dropped below normal by 0.2°C respectively, in the province. Mean values of wind speed, relative humidity and ETo were recorded as 4.6 km/hr, 58 %, and 5.8 mm/day respectively (Fig 3-4).

1.2 Sindh

Light to moderate rainfall reported from few agricultural plains of Sindh; chief amount received at Chhor, Mithi and Jacobabad etc. Decadal maximum and minimum temperature both dropped above normal by 1.1 & 0.4°C respectively, in the province. Mean values of wind speed, relative humidity and ETo were recorded as 6.6 km/hr, 54 %, and 6.9 mm/day respectively.

1.3 Khyber Pakhtoon Khawa (KP)

Light to moderate rainfall with few heavy falls reported from most of the agricultural plains of KPK; chief amount received at Kakul, Malam Jabba and Risalpur etc. Decadal maximum temperature raised above normal by 0.3°C and minimum temperature dropped below normal by 0.9°C respectively, in the province. Mean values of wind speed, relative humidity and ETo were recorded as 3.9 km/hr, 56 %, and 5.7 mm/day respectively.

1.4 Balochistan

Light to moderate rainfall reported from few agricultural plains of Balochistan; chief amount received at Barkhan, Lasbella and Zhob. In the northern Balochistan, decadal maximum temperature raised above normal by 0.0°C and minimum temperature dropped below normal by 0.7°C respectively. Whereas mean values of wind speed, relative humidity and ETo were recorded 6.2 km/hr, 38 %, and 6.7 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 Azad Jammu & Kashmir; chief amount received at Kotli, Muzaffarabad and Rawalakot etc. In Gilgit Baltistan region; decadal maximum and minimum temperature both dropped below normal by 1.0 & 0.2°C respectively. Whereas mean values of wind speed, relative humidity and ETo were recorded as 6.5 km/hr, 38 %, and 5.7 mm/day respectively.

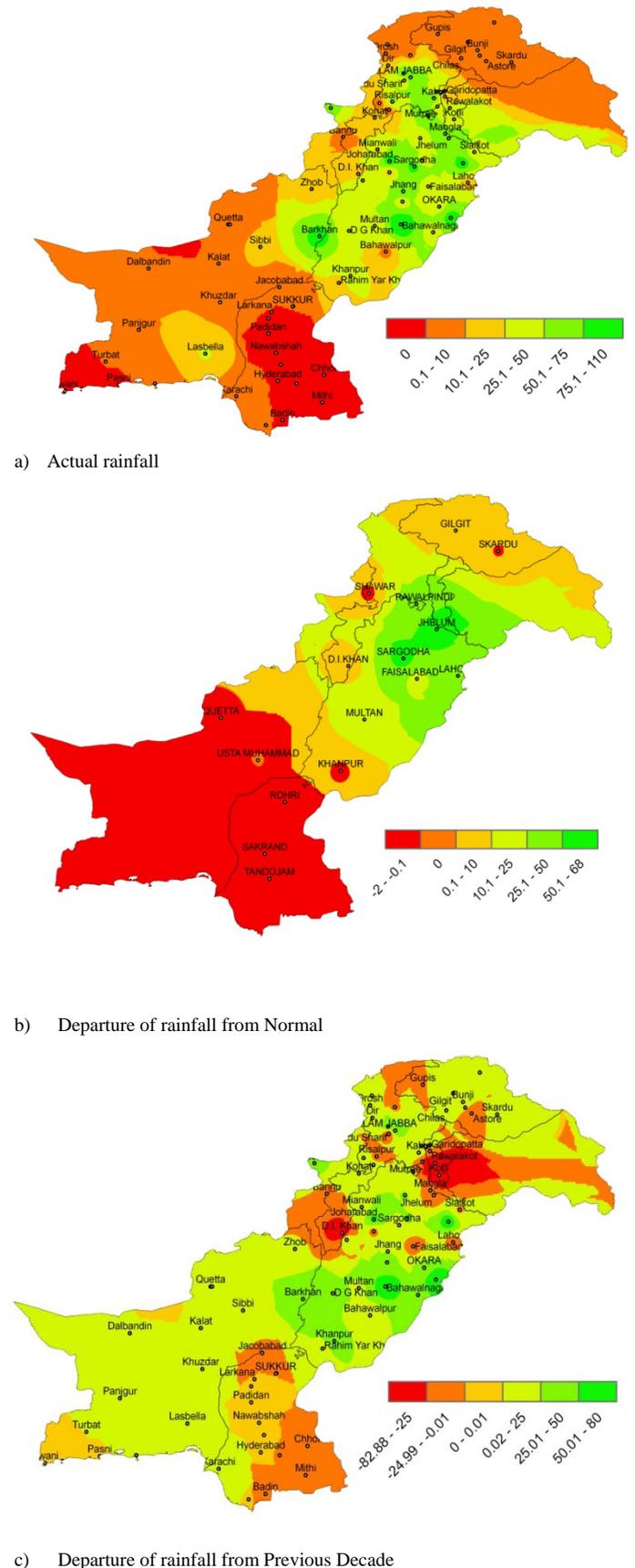


Figure.1: Rainfall distribution during previous decade in “mm”

2 (a) Past Weather for Major Agricultural Plains (11th to 20th July, 2012) as per Table-1

2.1 RAMC, Rawalpindi (Potohar region)

Rainfall reported as 36.7 mm during the decade, weather remained cloudy for 8 days and average relative humidity recorded as 53%. Mean night temperature was 25.1°C while day temperature recorded as 36.7°C with 91.2 hours bright sunshine duration. Wind speed recorded as 2.8 Km/hr with mean direction *westerly*. Presently no crop is grown at the station.

2.2 RAMC, Tandojam (Lower Sindh)

No rainfall reported during the decade, weather remained cloudy for 10 days and average relative humidity recorded as 63%. Mean night temperature was 27.3°C while day temperature recorded as 36.8°C with 78.6 hours bright sunshine duration. Wind speed recorded as 7.9 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 at Boll Formation stage.

2.3 RAMC, Faisalabad (Central Punjab)

Rainfall reported as 23.0 mm during the decade, weather remained cloudy for 9 days and average relative humidity recorded as 61%. Mean night temperature was 27.2°C while day temperature recorded as 36.9°C with 81.2 hours bright sunshine duration. Wind speed recorded as 6.8 Km/hr with mean direction *south 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, Budding stage completed.

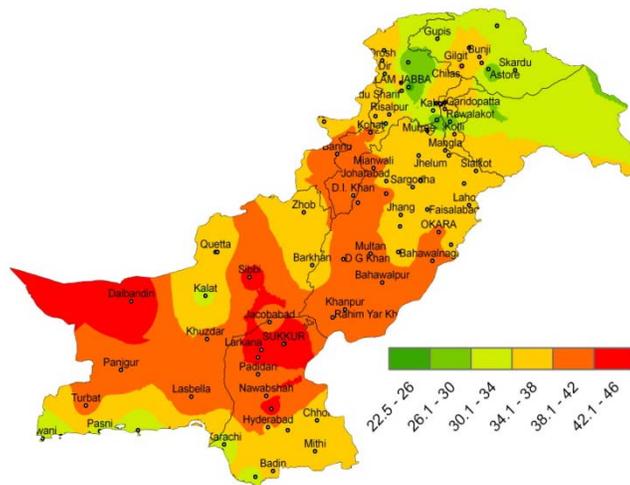
2.4 RAMC, Quetta (Northern Balochistan)

No rainfall and cloudy day reported during the decade, average relative humidity recorded as 27%. Mean night temperature was 19.9°C while day temperature recorded as 35.9°C with 108.9 hours bright sunshine duration and wind speed recorded as 6.8 Km/hr with mean direction *north westerly*. Presently no crop is grown at the station.

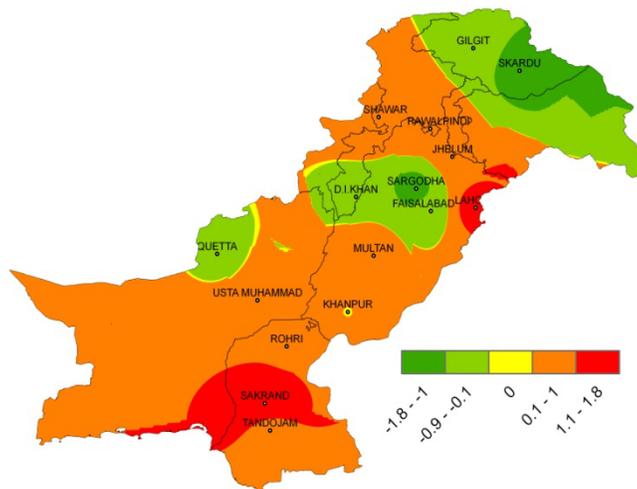
2.5 RAMC, Usta Muhammad (Eastern Balochistan)

No rainfall reported during the decade, weather remained cloudy for 4 days and average relative humidity recorded as 48%. Mean night temperature was 28.5°C while day temperature recorded as 42.6°C. Wind speed recorded as 5.5 Km/hr with mean direction *southerly*. Presently one crop (Irrigated conditions) is grown at the station as detailed below:

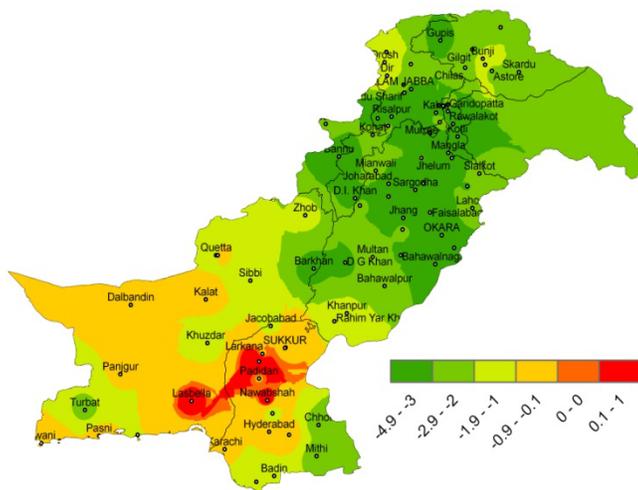
Rice: Good condition, Third Leaf stage.



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 (11th to 20th July, 2012)

2.6 Rohri

No rainfall reported during the decade, weather remained cloudy for 5 days and average relative humidity recorded as 47%. Mean night temperature was 29.9°C while day temperature recorded as 42.0°C with 108.0 hours bright sunshine duration. Wind speed recorded as 6.9 Km/hr with mean direction *southerly*.

2.7 Skardu

No rainfall reported during the decade, weather remained cloudy for 6 days and average relative humidity recorded as 35%. Mean night temperature was 15.2°C while day temperature recorded as 30.0°C with 59.4 hours bright sunshine duration. Wind speed recorded as 9.2 Km/hr with variable wind.

2.8 Multan

Rainfall reported as 21.2 mm during the decade, weather remained cloudy for 9 days and average relative humidity recorded as 56%. Mean night temperature was 29.4°C while day temperature recorded as 39.8°C with 94.0 hours bright sunshine duration. Wind speed recorded as 6.6 Km/hr with mean direction *southerly*.

2.9 Lahore

Rainfall reported as 33.9 mm during the decade, weather remained cloudy for 9 days and average relative humidity recorded as 57%. Mean night temperature was 26.3°C while day temperature recorded as 37.3°C with 89.9 hours bright sunshine duration. Wind speed recorded as 4.2 Km/hr with mean direction *south easterly*.

2.10 Peshawar

Rainfall reported as Trace (amount not measurable) during the decade, weather remained cloudy for 9 days and average relative humidity recorded as 53%. Mean night temperature was 25.8°C while day temperature recorded as 38.1°C with 87.9 hours bright sunshine duration. Wind speed recorded as 3.0 Km/hr with mean direction *north-northeasterly*.

2.11 Khanpur

Rainfall reported as 20.0 mm during the decade, weather remained cloudy for 6 days and average relative humidity recorded as 55%. Mean night temperature was 28.6°C while day temperature recorded as 39.6°C with 96.6 hours bright sunshine duration. Wind speed recorded as 7.2 Km/hr with mean direction *south westerly*.

2.12 Sargodha

Rainfall reported as 61.3 mm during the decade, weather remained cloudy for 10 days and average relative humidity recorded as 64%. Mean night temperature was 26.4°C while day temperature recorded as 36.3°C with 79.3 hours bright

sunshine duration. Wind speed recorded as 2.8 Km/hr with mean direction *easterly*.

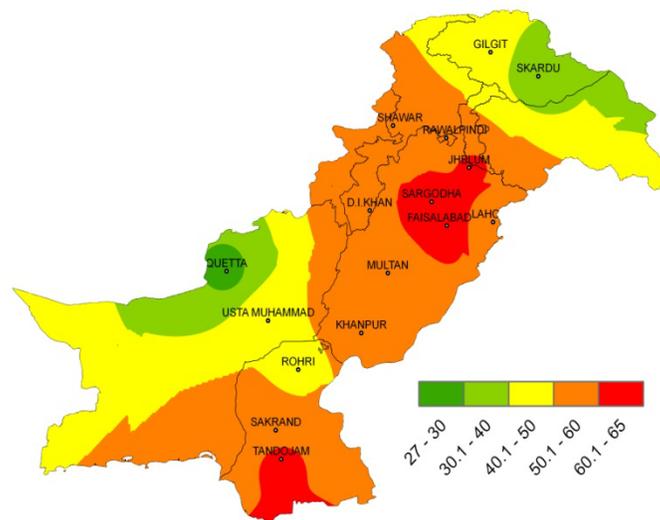


Figure.3: Relative Humidity in percentage

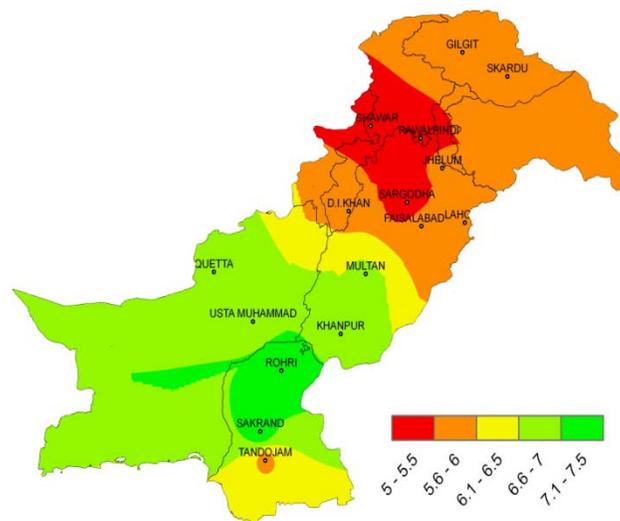


Figure.4: Reference Crop Evapotranspiration “ETo” in mm/day

2.13 Gilgit.

Rainfall reported as 0.5 mm during the decade however weather remained cloudy for 1 day and average relative humidity recorded as 41%. Mean night temperature was 17.1°C while day temperature recorded as 35.8°C with 83.9 hours bright sunshine. Wind speed recorded as 6.0 Km/hr with mean direction *easterly*.

2.14 Jhelum

Rainfall reported as 74.7 mm during the decade however weather remained cloudy for 10 days and average relative humidity recorded as 61%. Mean night temperature was 25.3°C while day temperature recorded as 36.9°C with 86.0 hours bright sunshine duration. Wind speed recorded as 5.3 Km/hr with mean direction *south westerly*.

2.15 D.I. Khan

Rainfall reported as 5.7 mm during the decade, weather remained cloudy for 8 days and average relative humidity recorded as 58%. Mean night temperature was 25.7°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 *north easterly*.

2.16 Sakrand

No rainfall reported during the decade however weather remained cloudy for 4 days average relative humidity recorded as 53%. Mean night temperature was 26.5°C while day temperature recorded as 40.5°C with 105.1 hours bright sunshine duration. Wind speed recorded as 9.4 Km/hr with mean direction *southerly*.

3. Ten days Weather advisory for Farmers (21st to 31st July, 2012)

3.1 Temperature Forecast:

Day time temperatures expected to be 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 to scattered thundershower expected in upper & central agricultural plains of the province during 25th to 26th July.
- ❖ **Khyber Pakhtoonkhawa:** Mainly hot & humid weather is expected during the decade. However isolated to scattered thundershower is expected in the agricultural plains of the province during 25th to 26th July.
- ❖ **Sindh:** Mainly hot & humid weather is expected during the decade. However light to moderate rain/dust thunderstorm is expected in southeastern parts of the province during 1st half of the decade.
- ❖ **Balochistan:** Mainly dry weather is expected during the decade. However intermittent rain/dust-thunderstorm is expected at isolated places of the province during the 2nd half of the decade.
- ❖ **Kashmir & Gilgit-Baltistan:** Mainly dry weather is expected during the decade. However thundershower with few heavy showers is likely at isolated to scattered places of Kashmir, while 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 during the monsoon season.
- ❖ 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 their cotton crop for the attack of pests especially attack of Melay Bug, Jassid, Thrips & Whitefly.