

# **All India Coordinated Research Project on Agrometeorology**

## **CRIDA, Santoshnagar, Hyderabad – 500 059**

### **Daily Crop Weather Information as on 23 Jul 2021**

**Attention: Rajiv Maheshwari, OSD, ICAR**

#### **Significant Weather Features (IMD)**

- Fairly widespread to widespread rainfall with isolated heavy to very heavy falls very likely to continue over west coast during next 2-3 days with reduction thereafter. Isolated extremely heavy falls also very likely over Konkan & Goa & adjoining Ghat areas of Madhya Maharashtra during 23rd-24th July with reduction thereafter and over Coastal and south Interior Karnataka, today the 23rd July.
- Scattered to fairly widespread rainfall with isolated heavy falls likely to continue over Gujarat state till 23rd with increase from 24th July. It is likely to increase to fairly widespread to widespread rainfall with isolated heavy to very heavy falls on 24th to 26th July, 2021 and Isolated extremely heavy falls also likely over Gujarat region 25th July
- Fairly Widespread to widespread rainfall with isolated heavy to very heavy falls likely to continue over east and adjoining central India during 23rd-25th July with reduction thereafter. Isolated extremely heavy falls also likely over West Madhya Pradesh on 23rd and 24th July and east Madhya Pradesh, Telangana and Odisha today, the 23rd July, 2021.
- Increase in rainfall activity over northwest India likely over western Himalayan region from 25th July and over adjoining plains from 26th July. Fairly widespread to widespread rainfall with isolated heavy to very heavy falls likely over these areas from 25th and 26th July respectively.. Isolated extremely heavy falls also likely over Uttarakhand on 25th and 26th July and over west Uttar Pradesh on 26th July.
- Very Light to Light rainfall at isolated places very likely to continue till 25th over Delhi and increase from 26th July.
- The images showing the latest satellite picture in the figure. 1.

#### **Main Weather Observations (IMD)**

- Rain/Thundershowers observed (from 0830 hours IST of yesterday to 0830 hours IST of today): at most places over Odisha, Himachal Pradesh, Madhya Pradesh,

Maharashtra & Goa, Chhattisgarh, Telangana, Rayalaseema, Karnataka and Kerala & Mahe; at many places over Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, West Bengal & Sikkim, West Uttar Pradesh, Uttarakhand, Saurashtra & Kutch, Coastal Andhra Pradesh & Yanam and Lakshadweep; at a few places over Andaman & Nicobar Islands, Assam & Meghalaya, Jharkhand, East Uttar Pradesh and Rajasthan and at isolated places over Bihar, Gujarat Region, Punjab, Haryana, Chandigarh & Delhi, Jammu, Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad and Tamilnadu, Puducherry & Karaikal.

- Heavy Rainfall recorded (from 0830 hours IST of yesterday to 0830 hours IST of today): Extremely Heavy Rainfall at isolated places over Karnataka, West Madhya Pradesh and Madhya Maharashtra; Very Heavy Rainfall at isolated places over Vidarbha, Odisha, Konkan & Goa, Tamil Nadu, Puducherry & Karaikal and Heavy Rainfall at isolated places over East Rajasthan, Kerala & Mahe, East Madhya Pradesh, Chhattisgarh, Telangana, Coastal Andhra Pradesh & Yanam.
- Thunderstorm observed (from 0830 hours IST to 1730 hours IST of yesterday): at isolated places over Assam & Meghalaya, Vidarbha, Bihar, Jharkhand, Odisha, Uttar Pradesh, Gangetic West Bengal, Madhya Pradesh and Chhattisgarh.
- Maximum Temperature Departures as on 22-07-2021: Maximum temperatures were markedly below normal ( $5.1^{\circ}\text{C}$  or More) at a few places over Arunachal Pradesh and at isolated places over Assam & Meghalaya; appreciably above normal ( $3.1^{\circ}\text{C}$  to  $5.0^{\circ}\text{C}$ ) at a few places over Sub-Himalayan West Bengal & Sikkim and East Rajasthan; above normal ( $1.6^{\circ}\text{C}$  to  $3.1^{\circ}\text{C}$ ) at most places over Bihar and Gujarat Region; at a few places over gangetic West Bengal and Odisha and at isolated places over Saurashtra & Kutch, Kerala & Mahe, Andaman & Nicobar Islands and Tamilnadu, Puducherry & Karaikal. They were markedly below normal ( $-5.1^{\circ}\text{C}$  or less) at many places over Telangana, Coastal Andhra Pradesh & Yanam, Rayalaseema and North Interior Karnataka; appreciably below normal ( $-3.1^{\circ}\text{C}$  to  $-5.0^{\circ}\text{C}$ ) at many places over South Interior Karnataka and Marathwada; at a few place over Vidarbha and at isolated places over West Uttar Pradesh; below normal ( $-1.6^{\circ}\text{C}$  to  $-3.0^{\circ}\text{C}$ ) at many places over Uttarakhand, Haryana, Chandigarh & Delhi and Coastal Karnataka; at a few places over Himachal Pradesh, Madhya Maharashtra and Konkan & Goa and at isolated places over Jammu, Kashmir, Ladakh, GilgitBaltistan & Muzaffarabad, East Uttar Pradesh, Madhya Pradesh and West Rajasthan and near normal over rest parts of the country. Yesterday, the highest maximum temperature of  $39.5^{\circ}\text{C}$  was reported at Bikaner (West Rajasthan).

- Minimum Temperature Departures as on 23-07-2021: Minimum temperatures are appreciably above normal (3.1°C to 5.0°C) at a few places over SubHimalayan West Bengal & Sikkim and Bihar; above normal (1.6°C to 3.0°C) at many places over Gujarat Sate, Punjab, Karnataka; at a few places over West Rajasthan, Andaman & Nicobar Islands, Tamilnadu, Puducherry & Karaikal and at isolated places over Odisha, Assam & Meghalaya, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura. They are appreciably below normal (-3.1°C to -5.0°C) at a few places over Telangana; below normal (-1.6°C to -3.0°C) at many places over North Interior Karnataka and Coastal Andhra Pradesh & Yanam; at a few places over Madhya Maharashtra and at isolated places over Madhya Pradesh and near normal over rest parts of the country. Today, the lowest minimum temperature of 17.6°C is reported at Bidar (North Interior Karnataka).

#### **Weather Warning during the next 5 days (IMD)**

- 23 July (Day 1): Heavy to Very Heavy Rainfall at a few places with Extremely Heavy Rainfall very likely at isolated places over Konkan & Goa; Heavy to Very Heavy Rainfall with Extremely Heavy Rainfall at isolated places over Madhya Pradesh, Odisha, Madhya Maharashtra, Telangana, Coastal Karnataka and South Interior Karnataka; Heavy to Very Heavy Rainfall at isolated places over Vidarbha, Chhattisgarh, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe and North Interior Karnataka and Heavy rainfall at isolated places over Rajasthan, Gangetic West Bengal, Jharkhand, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Marathwada, Gujarat Region and Coastal Andhra Pradesh & Yanam. Thunderstorm accompanied with lightning & gusty wind (speed 30-40 kmph) very likely at isolated places over Andaman & Nicobar Islands and with lightning at isolated places over Uttarakhand, Uttar Pradesh, Rajasthan, Jharkhand, Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh & Yanam, Telangana and Rayalaseema. Strong winds (speed 50-60 kmph gusting to 70 kmph) very likely over Southwest & Westcentral Arabian Sea; North Arabian Sea and along & off GujaratMaharashtra-Goa coasts; (speed 40-50 kmph gusting to 60 kmph) over Southeast Arabian Sea and along & off Karnataka-Kerala coasts & Lakshadweep area; North Arabian Sea and along & off West Bengal and Odisha coasts; South & adjoining Central Bay of Bengal & Andaman Sea and south Tamilnadu & Andhra Pradesh coasts. Fishermen are advised not to venture into these areas.

- 24 July (Day 2): Heavy to Very Heavy Rainfall with Extremely Heavy Rainfall very likely at isolated places over Konkan & Goa, West Madhya Pradesh and Madhya Maharashtra; Heavy to Very Heavy Rainfall at isolated places over East Rajasthan, East Madhya Pradesh, Gujarat Region and Coastal Karnataka and Heavy rainfall at isolated places over Andaman Islands, Odisha, Jharkhand, Vidarbha, Chhattisgarh, Nagaland, Manipur, Mizoram & Tripura, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Interior Karnataka and Telangana. Thunderstorm accompanied with lightning & gusty wind (speed 40-50 kmph) very likely at isolated places over Andaman & Nicobar Islands and with lightning at isolated places over Uttarakhand, Uttar Pradesh, Rajasthan, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh & Yanam, Telangana and Rayalaseema. Strong winds (speed 50-60 kmph gusting to 70 kmph) very likely over Southwest & Westcentral Arabian Sea; North Arabian Sea and along & off GujaratMaharashtra-Goa coasts; (speed 40-50 kmph gusting to 60 kmph) over Southeast Arabian Sea and along & off Karnataka-Kerala coasts & Lakshadweep area; North Arabian Sea and along & off West Bengal and Odisha coasts; South & adjoining Central Bay of Bengal & Andaman Sea and south Tamilnadu & Andhra Pradesh coasts. Fishermen are advised not to venture into these areas.
- 25 July (Day 3): Heavy to Very Heavy Rainfall at a few places with Extremely Heavy Rainfall very likely at isolated places over Uttarakhand; Heavy to Very Heavy Rainfall with Extremely Heavy Rainfall at isolated places over Gujarat Region; Heavy to Very Heavy Rainfall at isolated places over East Rajasthan, West Uttar Pradesh, Konkan & Goa and Madhya Maharashtra and Heavy rainfall at isolated places over Himachal Pradesh, East Uttar Pradesh, Andaman Islands, Odisha, Jharkhand, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Madhya Pradesh, Saurashtra & Kutch, Kerala & Mahe and Coastal Karnataka. Thunderstorm accompanied with lightning & gusty wind (speed 40-50 kmph) very likely at isolated places over Andaman & Nicobar Islands and with lightning at isolated places over Uttarakhand, Uttar Pradesh, Rajasthan, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Tamilnadu, Puducherry & Karaikal. Strong winds (speed 40-50 kmph gusting to 60 kmph) very likely over Southwest & Westcentral Arabian Sea; North Arabian Sea and along & off GujaratMaharashtra-Goa coasts; Southeast Arabian Sea and along & off Karnataka-Kerala coasts & Lakshadweep area; North Arabian Sea and along & off West Bengal and Odisha coasts; South & adjoining Central Bay of Bengal & Andaman Sea and south Tamil Nadu & Andhra Pradesh coasts.

Fishermen are advised not to venture into these areas. Madhya Pradesh, State, Kerala & Mahe and Coastal Karnataka.

- 26 July (Day 4): Heavy to Very Heavy Rainfall at a few places with Extremely Heavy Rainfall likely at isolated places over Uttarakhand; Heavy to Very Heavy Rainfall with Extremely Heavy Rainfall at isolated places over West Uttar Pradesh; Heavy to Very Heavy Rainfall at isolated places over Himachal Pradesh, Haryana, Chandigarh & Delhi, East Uttar Pradesh, Arunachal Pradesh and Assam & Meghalaya and Heavy rainfall at isolated places over Jammu, Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Punjab, East Rajasthan, Sub-Himalayan West Bengal & Sikkim, Odisha, Jharkhand, Bihar, Nagaland, Manipur, Mizoram & Tripura, Madhya Pradesh, Konkan & Goa, Madhya Maharashtra, Gujarat State, Kerala & Mahe and Coastal Karnataka. Thunderstorm accompanied with lightning & gusty wind (speed 30-40 kmph) likely at isolated places over Andaman & Nicobar Islands and with lightning at isolated places over Uttarakhand, Uttar Pradesh, Rajasthan, Odisha, Jharkhand, Bihar, Sub-Himalayan West Bengal & Sikkim and Tamilnadu, Puducherry & Karaikal. Strong winds (speed 40-50 kmph gusting to 60 kmph) likely over Southwest & Westcentral Arabian Sea; North Arabian Sea and along & off Gujarat Maharashtra-Goa coasts; Southeast Arabian Sea and along & off Karnataka-Kerala coasts & Lakshadweep area; North Arabian Sea and along & off West Bengal and Odisha coasts; South & adjoining Central Bay of Bengal & Andaman Sea and south Tamilnadu & Andhra Pradesh coasts. Fishermen are advised not to venture into these areas.
- 27 July (Day 5): Heavy to Very Heavy Rainfall likely at isolated places over Jammu, Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Uttar Pradesh, Bihar, Odisha and Assam & Meghalaya and Heavy rainfall at isolated places over Haryana, Chandigarh & Delhi, Punjab, West Bengal & Sikkim, Jharkhand, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Madhya Maharashtra and Gujarat Region. Thunderstorm accompanied with lightning & gusty wind (speed 30-40 kmph) likely at isolated places over Andaman & Nicobar Islands and with lightning at isolated places over Uttarakhand, Uttar Pradesh, Rajasthan, Jharkhand, Bihar, Sub-Himalayan West Bengal & Sikkim and Tamilnadu, Puducherry & Karaikal. Strong winds (speed 40-50 kmph gusting to 60 kmph) likely over Southwest & Westcentral Arabian Sea; North Arabian Sea and along & off Gujarat Maharashtra-Goa coasts; Southeast Arabian Sea and along & off Karnataka-Kerala coasts & Lakshadweep area; North Arabian Sea and along & off West Bengal and Odisha coasts; South & adjoining Central Bay of Bengal & Andaman Sea and south

Tamilnadu & Andhra Pradesh coasts. Fishermen are advised not to venture into these areas.

- The weather outlook for seven days i.e., 23 Jul to 31 Jul 2021 forecasted (Provided by Real-Time Weather Forecasts from NOAA/NCEP collected from <http://monsoondata.org/wx2/>) rain/thundershower may occur over Some parts of Extreme northern parts of India. (Fig. 2).

## **Agricultural activities (AICRPAM-CRIDA)**

### **Gujarat**

#### **Weather condition:**

The actual maximum temperature was 1.8 °C and the actual minimum temperature was 1.5 °C higher as compare to their normals. Total BSS was 24.7 hrs. with an average of 3.5 hrs. The daily average evaporation and wind speed was 3.5 mm and 5.7 km/hr respectively. The daily average RH during morning and afternoon was 88.9 % and 71.3 % respectively.

#### **Contingency measure:**

- Land preparation for kharif crops. Purchase certified seed for kharif crops only from authorized dealer. Seed treatment with mercuric fungicide like Thiram, Captan etc.is recommended before sowing of crops.
- Pearl millet: Sowing of kharif pearl millet should be done with the onset of monsoon when sufficient rainfall received for sowing. Seed rate should be 4 kg/ha with 45 x 10 cm spacing. Select varieties like GHB-538, 558, 577, 719, 732, 744 for kharif sowing. The field should be ploughed once or twice followed by harrowing to create fine tilth. Farmers are advised to select any variety for sowing of Green gram-GM-3, GM-4, GM-5, K-851, Black gram-T-9, GU-1, Cowpea-Gujarat cowpea-1,2,4, Pusa falguni, Pigeon pea-Vaishali, GT-100, GTH-1, BHSR-711.
- Cotton: If irrigation facility available, sown cotton. cotton can sown at 120 cm x 45 cm spacing.
- Tobacco: Nursery preparation :Carry out nursery bed preparation for raising the seedlings of bidi tobacco varieties like Anand-119, Anand- 2, GT- 4, GT-5 GABTH-2, GABT-11, ABT-10, MRGTH-1 for kharif cultivation.
- Chilli: For control of thrips, spray Profenofos 20 ml or neem seed oil 50 ml in 10 liter water. In case of severe attack, spray Spinosad or Spinetoram 3 ml per 10 liter of water.
- Mango: Farmers are advised to clean the orchards by removing dead plant debris and prepare for excess water drain out from the field. It is the best time for

plantation of fruit orchard.

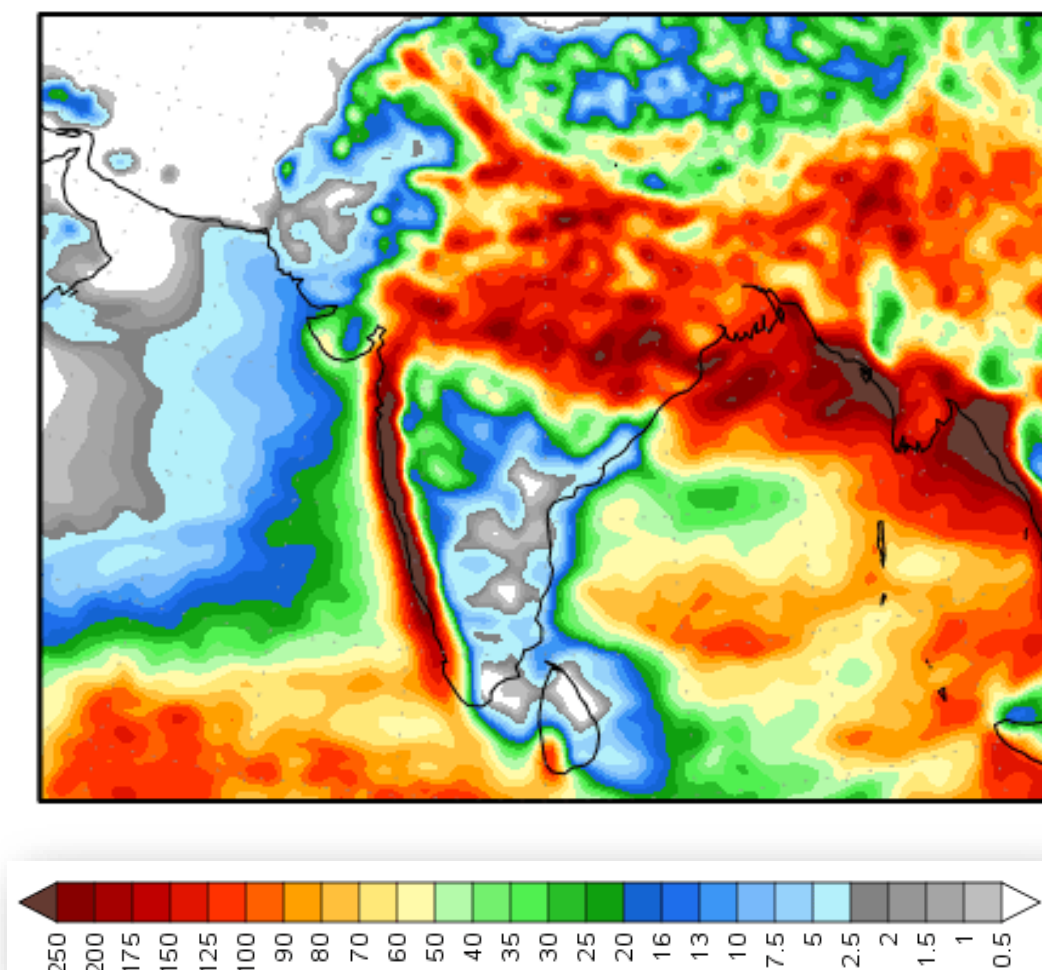
- Cattle: Vaccinate the animals against outbreaks of diseases like Foot & Mouth disease (FMD), Haemorrhagic Septicaemia (H.S.) and Black quarter (B.Q.) during onset of monsoon. Keep animal indoor in rainy condition. Keep fodder at safe place to avoid spoilage from rainfall. Spray phenyl in the animal shed to avoid flies and mosquitos.



23-07-2021/(0830 to 0857) GMT  
23-07-2021/(1400 to 1427) IST







**Figure:2. Precipitation forecast for 23 Jul to 31 Jul 2021 (Source: NOAA NCEP).**

*Disclaimer: The predictability of weather depends on many dynamic factors. The success of Agromet advisories provided here depends on the accuracy of the forecasts. In no event will India Meteorological Department (IMD) and Indian Council of Agricultural Research (ICAR) be liable to the user or any third party for any direct, indirect, incidental, consequential, special or exemplary damages or lost profit resulting from any use or misuse of the information on this bulletin.*