

All India Coordinated Research Project on Agrometeorology

CRIDA, Santoshnagar, Hyderabad – 500 059

Daily Crop Weather Information as on 22 July 2020

Attention: Rajiv Maheshwari, OSD, ICAR

Significant Weather Features (IMD)

- The western part of monsoon trough lies little to the south of its normal position and eastern part is along the foothills of the Himalayas. In addition, the convergence of moist southerly/southwesterly winds from Bay of Bengal over Northeast & adjoining East India and from Arabian Sea over northwest India at lower tropospheric levels very likely to continue during next 24 hours.
- Under the influence of the above meteorological conditions: Widespread rainfall activity with isolated heavy to very heavy falls very likely over Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura during next 3-4 days and rainfall intensity very likely to decrease thereafter. Isolated extremely heavy falls also very likely over Assam & Meghalaya on 21st July. The intense spell over Bihar and Northeast India may accentuate existing flood conditions and lead to landslides in some areas of Northeastern states and Sub-Himalayan West Bengal & Sikkim.
- Impact: The intense spell over Bihar and Northeast India may accentuate existing flood conditions and lead to landslides in some areas of Northeastern states and Sub-Himalayan West Bengal & Sikkim
- Intense thunderstorm & lightning potential zone: Moderate to severe thunderstorm & lightning at isolated places very likely over Bihar, Vidarbha, Jharkhand, Haryana, Chandigarh & Delhi, West Uttar Pradesh, West Bengal, Meghalaya and north Odisha during next 12 hours.
- The images showing the latest satellite picture in the figure. 1.

Main Weather Observations (IMD)

- Rain/Thundershowers observed (from 0830 hours IST to 1730 hours IST of yesterday): at most places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad, Himachal Pradesh, Uttarakhand, Haryana, Chandigarh & Delhi, Gujarat region, Bihar, Jharkhand, West Rajasthan, West Bengal & Sikkim, Assam & Meghalaya, and Nagaland, Manipur, Mizoram & Tripura; at many places over

Arunachal Pradesh, East Madhya Pradesh and West Uttar Pradesh; at a few places over Vidarbha; and at isolated places over Chhattisgarh, Odisha, Coastal Andhra Pradesh & Yanam, Telangana, Saurashtra & Kutch, Punjab, West Madhya Pradesh, Madhya Maharashtra and Andaman & Nicobar Islands.

- Thunderstorm observed (from 1130 hours IST of yesterday to 0530 hours IST of today): at isolated places over Jammu & Kashmir, Ladakh, GilgitBaltistan, Muzaffarabad, West Rajasthan, East Uttar Pradesh, Haryana, Chandigarh & Delhi, Bihar, Jharkhand, Gangetic West Bengal, Odisha, Vidarbha, Chhattisgarh and Kerala & Mahe.
- Maximum Temperature Departures as on 21-07-2020: Maximum temperatures were appreciably above normal (3.1°C to 5.0°C) at most places over Kerala & Mahe; at many places over East Rajasthan, West Madhya Pradesh, Gujarat region and Madhya Maharashtra; at a few places over Saurashtra & Kutch; above normal (1.6°C to 3.0°C) at most places over Konkan & Goa and interior Karnataka; at many places over Chhattisgarh and Andaman & Nicobar Islands; at a few places over East Madhya Pradesh and Odisha; and at isolated places over Vidarbha, Jharkhand, Gangetic west Bengal, Tamil Nadu, puducherry & Karaikal and Telangana. They were appreciably below normal (-3.1°C to -5.0°C) at most places over Punjab and Jammu & Kashmir, Ladakh, GilgitBaltistan, Muzaffarabad; at many places over Arunachal Pradesh, Himachal Pradesh and Haryana, Chandigarh & Delhi; below normal (-1.6°C to -3.0°C) at most places over Assam & Meghalaya; at a few places over West Rajasthan; and at isolated places over East Uttar Pradesh and were Bihar and near normal over rest parts of the country. Yesterday, the highest Maximum temperature of 38.3°C was reported at Jaisalmer (West Rajasthan).
- Minimum Temperature Departures as on 21-07-2020: Minimum temperatures were appreciably above normal (3.1°C to 5.0°C) at isolated places over Saurashtra & Kutch; above normal (1.6°C to 3.0°C) at most places over Rajasthan; at many places over Gujarat region; at a few places over Madhya Maharashtra, Odisha, Andaman & Nicobar Islands, South Interior Karnataka and Jharkhand and at isolated places over Madhya Pradesh, Bihar, Gangetic West Bengal and Coastal Andhra Pradesh & Yanam. They were appreciably below normal (-3.1°C to -5.0°C) at many places over Punjab; at a few places over Haryana, Chandigarh & Delhi and at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad; below normal (-1.6°C to -3.0°C) at a few places over Himachal Pradesh, Tamil Nadu, Puducherry & Karaikal and Telangana and at isolated places over West Uttar Pradesh, Assam & Meghalaya and Arunachal Pradesh and

were near normal over rest parts of the country. Yesterday, the lowest minimum temperature of 20.0°C was reported at Chandrapur (Vidarbha) and Medak (Telangana) over the plains of the country

Weather Warning during the next 5 days (IMD)

- 22 July (Day 1): Heavy to Very heavy rainfall at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Lakshadweep and heavy rainfall at isolated places over Uttarakhand, East Uttar Pradesh, East Madhya Pradesh, Chhattisgarh, Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim, Odisha, Arunachal Pradesh, Madhya Maharashtra, Telangana, Rayalseema, South Interior Karnataka and Kerala & Mahe. Thunderstorm accompanied with lightening very likely at isolated places over Bihar, Jharkhand, Gangetic West Bengal, Haryana, Chandigarh & Delhi, West Uttar Pradesh, Odisha, Coastal Andhra Pradesh & Yanam and Rayalseema. Strong wind (speed reaching 50-60 kmph) very likely over Southwest & adjoining Westcentral Arabian Sea. Squally Weather (wind speed reaching 40- 50kmph) over Lakshadweep area & adjoining southeast Arabian Sea; along & off Kerala Coast and Eastcentral Arabian Sea & off Karnataka Coast. Fisherman are advised not to venture into sea over these areas. Fairly widespread to widespread rainfall/thundershowers likely over East Rajasthan, Haryana, Uttar Pradesh, Bihar and northeast India; Scattered to fairly widespread over parts of North and central India and isolated to scattered over rest parts of India.
- 23 July (Day 2): Heavy to very heavy rainfall at isolated places with extremely heavy falls at isolated places very likely over Assam & Meghalaya; heavy to very heavy rainfall at isolated places over West Uttar Pradesh and Nagaland, Manipur, Mizoram & Tripura and heavy rainfall at isolated places over Uttarakhand, East Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Jharkhand, West Bengal & Sikkim, Odisha, Arunachal Pradesh, Madhya Maharashtra, Marathwada, Konkan & Goa, Telangana, Rayalaseema, Karnataka, Tamil Nadu, Puducherry & Karaikal, Lakshadweep and Kerala & Mahe. Thunderstorm accompanied with lightning very likely at isolated places over Bihar, Jharkhand, Gangetic West Bengal, Coastal Andhra Pradesh & Yanam, Tamilnadu, Puducherry & Karaikal and Rayalaseema. Strong Wind (speed reaching 50-60 kmph) very likely over Southwest and adjoining westcentral Arabian Sea. Squally weather (wind speed reaching 40-50 kmph) over Lakshadweep area & adjoining southeast Arabian sea; along & off Kerala coast and Eastcentral Arabian Sea & off Karnataka-Goa-South Maharashtra coasts. Fishermen are advised not to venture into Sea over these areas. Fairly widespread to widespread rainfall/thundershowers likely over East

Rajasthan, Haryana, Uttar Pradesh, Bihar and northeast India; Scattered to fairly widespread over parts of North and central India and isolated to scattered over rest parts of India.

- 24 July (Day 3): Heavy rainfall at isolated places over Himachal Pradesh, Uttarakhand, East Uttar Pradesh, East Rajasthan, Madhya Pradesh, Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Madhya Maharashtra, Marathwada, Konkan & Goa, Telangana, Rayalaseema, Coastal Karnataka, Tamilnadu, Puducherry & Karaikal and Kerala & Mahe. Thunderstorm accompanied with lightning very likely at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, Rajasthan, Jharkhand, Coastal Andhra Pradesh & Yanam, Rayalaseema and Tamil Nadu, Puducherry & Karaikal. Strong Wind (speed reaching 50-60 kmph) very likely over Southwest and adjoining westcentral Arabian Sea. Squally weather (wind speed reaching 40-50 kmph) over Lakshadweep area & adjoining southeast Arabian sea; along & off Kerala coast and Eastcentral Arabian Sea & off Karnataka-Goa-Maharashtra coasts. Fishermen are advised not to venture into Sea over these areas. Fairly widespread to widespread rainfall/thundershowers likely over East Rajasthan, Haryana, Uttar Pradesh, Bihar and northeast India; Scattered to fairly widespread over parts of North and central India and isolated to scattered over rest parts of India.
- 25 July (Day 4): Heavy rainfall at isolated places over Himachal Pradesh, Uttarakhand, Uttar Pradesh, East Rajasthan, Madhya Pradesh, Bihar, SubHimalayan West Bengal & Sikkim, Assam & Meghalaya, Gujarat State and Konkan & Goa. Thunderstorm accompanied with lightning very likely at isolated places over Jharkhand, Coastal Andhra Pradesh & Yanam and Rayalaseema. Strong Wind (speed reaching 50-60 kmph) very likely over Southwest and adjoining westcentral Arabian Sea. Squally weather (wind speed reaching 40-50 kmph) over Eastcentral & Northwest Arabian Sea and along & off Karnataka-Maharashtra coasts. Fishermen are advised not to venture into Sea over these areas.
- 26 July (Day 5): Heavy rainfall at isolated places over Himachal Pradesh, Uttarakhand, Uttar Pradesh, East Rajasthan, Madhya Pradesh, Bihar, SubHimalayan West Bengal & Sikkim, Assam & Meghalaya, Gujarat State and Konkan & Goa. Thunderstorm accompanied with lightning very likely at isolated places over Jharkhand, Coastal Andhra Pradesh & Yanam and Rayalaseema. Strong Wind (speed reaching 50-60 kmph) very likely over Southwest and

adjoining westcentral Arabian Sea. Squally weather (wind speed reaching 40-50 kmph) over Eastcentral & Northwest Arabian Sea and along & off Karnataka-Maharashtra coasts. Fishermen are advised not to venture into Sea over these areas.

- The weather outlook for seven days i.e., 22 to 30 July 2020 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)

Punjab

Weather condition:

The maximum temperature during the week ranged between 30.0-36.2°C and minimum temperature ranged between 21.4-28.6 °C. The morning and evening relative humidity during the week varied between 75-92 and 52-67%, respectively. The sunshine hours during the week ranged between 4.2-12.7 hrs/day. The evaporation rate ranged between 4.4-7.2 mm day⁻¹. Daily average wind speed varied from 1.9-7.6 kmhr⁻¹.

Contingency measure:

- IMD WEATHER FORECAST Cloudy and rainy weather is likely to prevail during coming days. Weather parameters are likely to remain as follows: Maximum Temperature 33-35 °C and Minimum Temperature 26-28 °C. CROP CONDITIONS AND CONTINGENCY PLAN Generally, crops are in good condition.
- GENERAL ADVISORY IN VIEW OF COVID -19: · Farmers are requested to follow social distancing and regularly wash hands with soap and water for 20 seconds. Do not exchange implements with fellow workers or farmers. Take proper diet. Sanitize the implements and machinery before use. If anyone feels fever, cough and difficulty in breathing he or she should consult a doctor. All farmers and farm workers are requested to download Aarogya Setu mobile application in their mobile phone.
- AGROMET ADVISORIES: Farmers are advised to watch weather before applying irrigation and spray of pesticides.
- Cotton: Drain away the excess rain water from the field. · Whitefly also attacks other alternate host crops like brinjal, potato, tomato, okra, moong, mash and guar. Regular surveillance should be done for timely management of whitefly on these crops. To prevent the incidence of mealy bug on the crop, remove all the weeds growing around the crop fields.
- Rice: Apply second 1/3 dose of nitrogen 21 days after transplanting. Start transplanting of basmati varieties CSR 30, Basmati 370, Basmati 386 and Pusa

Basmati 1509 during the period. Use PAU-Leaf colour chart for need based urea application. To manage foot rot in Basmati rice, treat the seed with *Trichoderma harzianum* @ 15g/kg before sowing. Dip the seedlings roots in solution of *Trichoderma harzianum* @ 15g/ litres of water for 6 hours before transplanting.

- Sugarcane: Drain away the excess rain water from the field. Check black bug especially on ratoon crop by spraying 350 ml Dursban/Lethal/Massban/Goldban 20EC (chlorpyrifos) in 400 litres of water per acre. Direct the spray into the leaf whorl.
- Maize: Drain away the excess rain water from the field. Control maize borer by spraying 30ml Coragen 18.5SC in 60 litres of water per acre. Trichogramma, a bioagent can also be used as recommended by PAU. To manage fall armyworm on grain crop, spray Coragen 18.5SC @ 0.4ml per litre water or Delegate 11.7sc (spinetoram)@0.5ml per litre or Missile 5SG (Emamectin benzoate) @0.4g/litre using 120 litres of water per acre for crop upto 20 days old. For effective control direct the nozzle towards the whorl. On fodder crop spray Coragen 18.5SC @ 0.4ml per litre water. Dont harvest fodder till 21 days after insecticide application.
- Vegetables: Drain away the excess rain water from the field. It is the time sowing of okra and cucurbits such as cucumber, bottle gourd, sponge gourd, pumpkin, etc. Jassid in okra (Bhindi) can be managed by spraying once or twice at fortnightly interval with 40 ml confidor 17.8SL (imidacloprid) or 40 g Actara 25WG (thiamethoxam) in 100-125 litres of water per acre. Prevailing weather is favourable for the development and spread of fruit rot and die back disease of chilli. Farmers are advised to spray the crop with 250 ml Folicur or 750 gm of Indofil M-45or Blitox in 250 litres of water per acre at 10 days interval to timely check the disease.
- Fruits: Drain away the excess rain water from the field. Monsoon showers are expected to arrive during the period; farmers can delay irrigations to fruit plants such as pear, citrus, litchi, mango etc. The spray of pesticides or micronutrients should also plan accordingly. This is proper time for planting new evergreen fruit pants such as citrus, mango, litchi, guava, papaya, sapota etc. Bagging of individual mature green and hard fruits of guava with white coloured non-woven bags will protect the fruits from fruit fly damage.

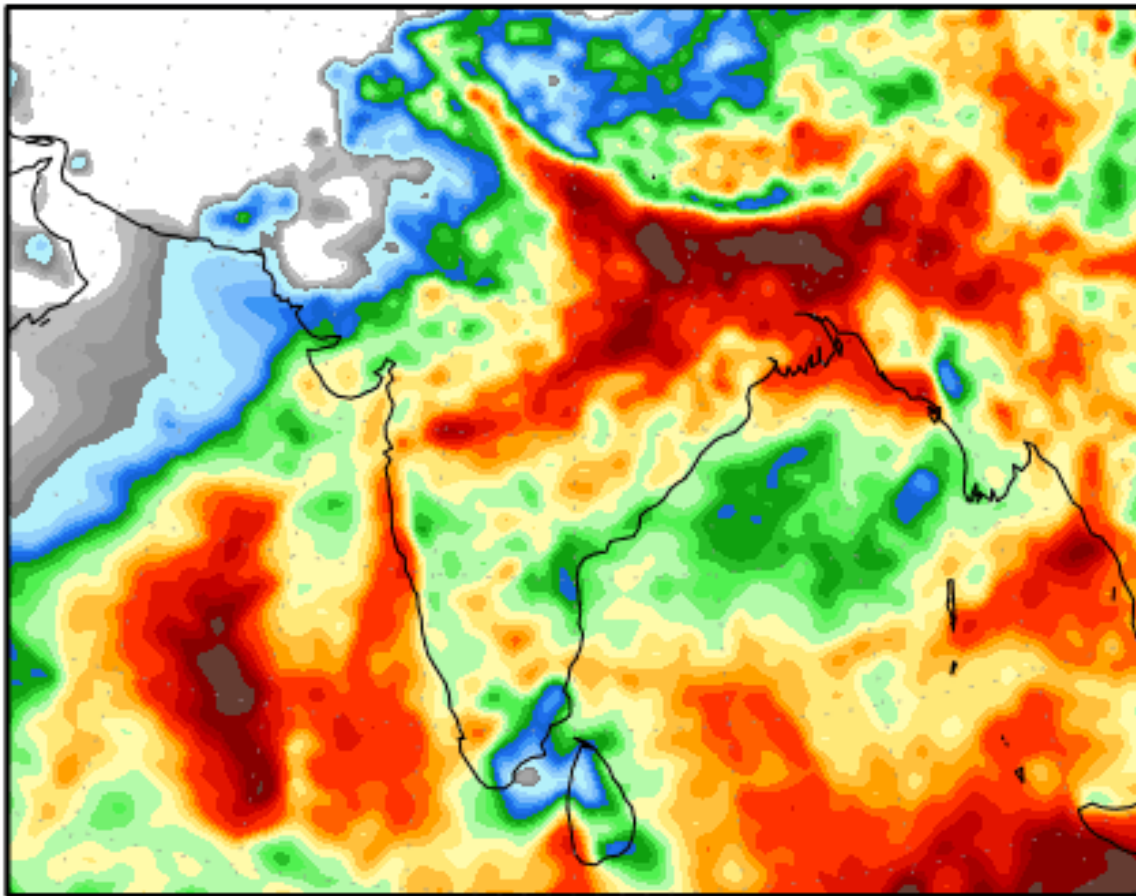


Figure:2. Precipitation forecast for 22 to 30 July 2020 (Source: NOAA NCEP).

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