

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

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

### **Daily Crop Weather Information as on 21 July 2020**

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

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

- The western part of monsoon trough lies north 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 2 days.
- Under the influence of the above meteorological conditions: i) Widespread rainfall activity with isolated heavy to very heavy falls very likely over Bihar, 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 and Sub-Himalayan West Bengal & Sikkim on 21st July. ii) Fairly widespread to widespread rainfall with isolated heavy to very heavy falls very likely over Jammu & Kashmir, Ladakh, GilgitBaltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi and Uttar Pradesh during next 24 hours and rainfall intensity & distribution very likely to decrease significantly thereafter.
- 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 Punjab, Haryana, Chandigarh & Delhi, east Uttar Pradesh, east Madhya Pradesh, Gengetic West Bengal, Odisha, Bihar, Chhattisgarh and Jharkhand 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 Bihar, Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Kerala & Mahe and Lakshadweep; at many places over East

Uttar Pradesh, Gangetic West Bengal and Nagaland, Manipur, Mizoram & Tripura; at a few places over Punjab, Haryana, Chandigarh & Delhi, Arunachal Pradesh, Chhattisgarh, Madhya Pradesh, Telangana, Coastal Andhra Pradesh & Yanam, Interior Karnataka and Tamil Nadu, Puducherry & Karaikal and at isolated places over Himachal Pradesh, Uttarakhand, Gujarat state, West Uttar Pradesh, Odisha, Vidarbha, Rayalaseema, Madhya Maharashtra, Konkan & Goa and Andaman & Nicobar Islands

- Heavy rainfall recorded at isolated places over Andaman & Nicobar Islands.
- Thunderstorm observed (from 0830 hours IST of yesterday to 0530 hours IST of today): at isolated places over Himachal Pradesh, Punjab, Haryana, Chandigarh & Delhi, Uttarakhand, Uttar Pradesh, Madhya Pradesh, Bihar, Jharkhand, Gangetic West Bengal, Chhattisgarh, Odisha, Telangana, Coastal Andhra Pradesh, Marathawada, Coastal & Interior Karnataka and Tamil Nadu, Puducherry & Karikal.
- Maximum Temperature Departures as on 20-07-2020: Maximum temperatures were appreciably above normal (3.1°C to 5.0°C) at many places over East Rajasthan; at a few places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad and Madhya Maharashtra; at isolated places over Gujarat state, Gangetic West Bengal and Kerala & Mahe; above normal (1.6°C to 3.0°C) at many places over West Rajasthan, Madhya Pradesh, Konkan & Goa, Coastal & South Interior Karnataka and Odisha; at a few places over Himachal Pradesh and Andaman & Nicobar Islands; at isolated places over Vidarbha and Telangana. They were appreciably below normal (-3.1°C to -5.0°C) at many places over Bihar and Sub-Himalayan West Bengal & Sikkim; below normal (-1.6°C to -3.0°C) at a few places over Nagaland, Manipur, Mizoram & Tripura and East Uttar Pradesh and at isolated places over Lakshadweep and near normal over rest parts of the country. Yesterday, the highest Maximum temperature of 40.2°C was reported at Phalodi (West Rajasthan).
- Minimum Temperature Departures as on 20-07-2020: Minimum temperatures were appreciably above normal (3.1°C to 5.0°C) at isolated places over East Rajasthan and Madhya Pradesh; above normal (1.6°C to 3.0°C) at many places over Rajasthan and Kerala & Mahe; at a few places over Gujarat State, Vidarbha and Odisha and at isolated places over Himachal Pradesh, Madhya Maharashtra, Tamil Nadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam and Andaman & Nicobar Islands. They were below normal (-1.6°C to -3.0°C) at many places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, East Uttar Pradesh, Telangana, Rayalaseema and Assam & Meghalaya and near

normal over rest parts of the country. Yesterday, the lowest minimum temperature of 19.8°C was reported at Chandrapur (Vidarbha) over the plains of the country.

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

- 21 July (Day 1): Heavy to very heavy rainfall at isolated places with extremely heavy falls at isolated places very likely over Sub-Himalayan West Bengal & Sikkim and Assam & Meghalaya; heavy to very heavy rainfall at isolated places over Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, West Uttar Pradesh, Bihar, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura and Lakshadweep and heavy rainfall at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad, East Uttar Pradesh, Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Jharkhand, Gangetic West Bengal and Kerala & Mahe. Thunderstorm accompanied with lightning very likely at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad, Himachal Pradesh, Uttarakhand, Uttar Pradesh, Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Marathawada. Strong Wind (speed reaching 50-60 kmph) very likely over Southwest and Westcentral Arabian Sea. Squally weather (wind speed reaching 40-50 kmph) over Southeast & Eastcentral Arabian Sea, Comorin-Maldives-Lakshadweep areas and off Kerala coast. Fishermen are advised not to venture into Sea over these areas.
- 22 July (Day 2): Heavy to very heavy rainfall at isolated places with extremely heavy falls at isolated places very likely over Lakshadweep; Heavy to very heavy rainfall at isolated places over Nagaland, Manipur, Mizoram & Tripura and Assam & Meghalaya; heavy rainfall at isolated places over East Uttar Pradesh, Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim, Odisha, Arunachal Pradesh and Kerala & Mahe. Thunderstorm accompanied with lightning very likely at isolated places over East Madhya Pradesh, Chhattisgarh, Odisha, Jharkhand, Marathawada and Tamilnadu, Puducherry & Karaikal. Strong Wind (speed reaching 50-60 kmph) very likely over Southwest and Westcentral Arabian Sea. Squally weather (wind speed reaching 40-50 kmph) over Southeast & Eastcentral Arabian Sea and along & off Kerala coast. Fishermen are advised not to venture into Sea over these areas.
- 23 July (Day 3): Heavy to very heavy rainfall at isolated places likely over Nagaland, Manipur, Mizoram & Tripura and Assam & Meghalaya; heavy rainfall at isolated places over Uttarakhand, East Uttar Pradesh, Vidarbha, Bihar,

Jharkhand, West Bengal & Sikkim, Odisha, Arunachal Pradesh, Madhya Maharashtra, Marathwada, Konkan & Goa, Rayalaseema, Coastal & South Interior Karnataka, Lakshadweep and Kerala & Mahe. Thunderstorm accompanied with lightning likely at isolated places over Bihar, Jharkhand and West Bengal & Sikkim. Strong Wind (speed reaching 50-60 kmph) very likely over Southwest and Westcentral Arabian Sea. Squally weather (wind speed reaching 40-50 kmph) over Southeast & Eastcentral Arabian Sea and along & off Kerala-Karnataka coasts. Fishermen are advised not to venture into Sea over these areas.

- 24 July (Day 4): Heavy rainfall at isolated places likely over Himachal Pradesh, Uttarakhand, Uttar Pradesh, East Rajasthan, Madhya Pradesh, Chhattisgarh, Assam & Meghalaya, Madhya Maharashtra, Konkan & Goa, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Coastal Karnataka and Kerala & Mahe. Thunderstorm accompanied with lightning likely at isolated places over Jharkhand. Strong Wind (speed reaching 50-60 kmph) very likely over Southwest and Westcentral Arabian Sea. Squally weather (wind speed reaching 40-50 kmph) along & off Karnataka-south Maharashtra coasts. Fishermen are advised not to venture into Sea over these areas.
- 25 July (Day 5): Heavy rainfall at isolated places likely over Himachal Pradesh, Uttarakhand, Uttar Pradesh, East Rajasthan, Madhya Pradesh, Assam & Meghalaya, Bihar Jharkhand, Gujarat region and Vidarbha. Thunderstorm accompanied with lightning likely at isolated places over Jharkhand. Strong Wind (speed reaching 50-60 kmph) very likely over Southwest and Westcentral Arabian Sea. Squally weather (wind speed reaching 40-50 kmph) along & off Karnataka-south Maharashtra coasts. Fishermen are advised not to venture into Sea over these areas.
- The weather outlook for seven days i.e., 21 to 29 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)**

### **Tamil Nadu**

#### **Weather condition:**

Maximum temperature: 36.3°C (normal 37.5°C), minimum temperature: 23.7°C (normal 24.3°C), rainfall: 97.8 mm (normal 3.4 mm). The Maximum temperature was 1.2°C below normal, minimum temperature was 0.6°C below normal and rainfall was 94.4 mm above normal across the week. General weather situation in Tamil Nadu: Maximum temperature range of 30°C - 39°C prevailed over the state except Kodaikanal and

Uthagamandalam (18°C - 19°C) during the period under report. Minimum temperature range of 22°C - 28°C prevailed over the state except Kodaikanal and Uthagamandalam (11°C - 13°C) during the period under report. With respect to daily rainfall, rainfall occurred at a few places over Tamil Nadu on 09.7.2020, 11.7.2020 and 12.7.2020, at many places over Tamil Nadu on 10.7.2020, at isolated places over Tamil Nadu on 13.7.2020 and 14.7.2020 during this week.

### Contingency measure:

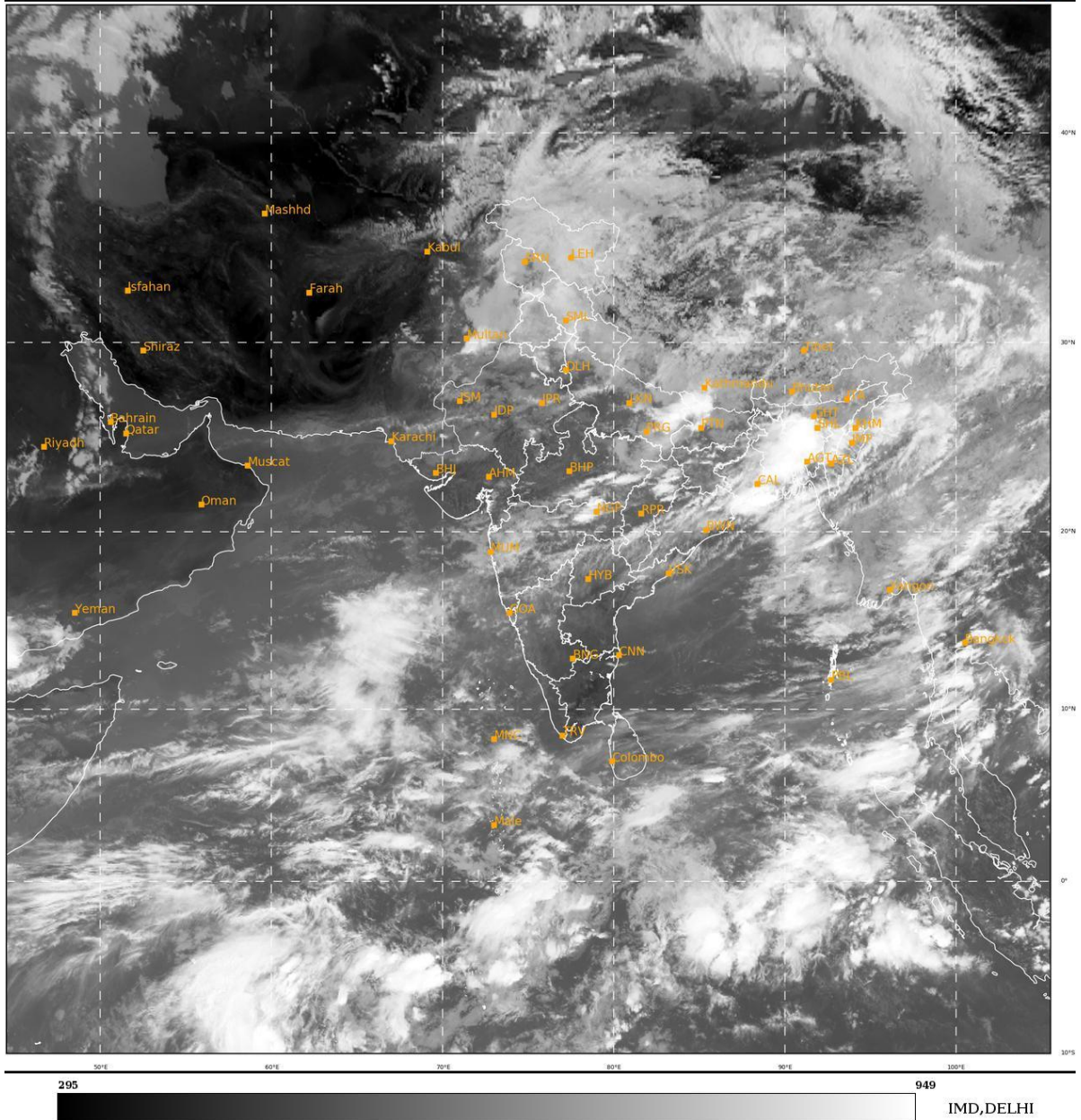
- Agromet advisories in relation to the anticipated weather have very light to moderate rainfall, very high cloud cover, morning Relative Humidity-high and evening Relative Humidity-moderate. Irrigated crops- Irrigation- Very light to moderate rainfall is expected in coming five days. Irrigation to be postponed. If needed irrigate based on the receipt of rainfall and available soil moisture.
- Citrus: Fruiting stage: The prevailing weather condition is conducive for incidence of citrus canker disease, spray of Streptomycin sulphate 500-1000 ppm; or Phytomycin 2500 ppm or Copper oxychloride 0.2% at fortnight intervals. Prune badly infected twigs before the onset of monsoon. Spray application of NSKE 5% to control Citrus leaf miner.
- Cotton: Harvest stage: In the Isolated places cotton crop is in harvest stage. Very light to moderate rainfall may damage the harvested produce, so protect the harvest produce.
- Animal husbandry: Continuous rain induces the incidence of worm infestation. So the farmers are advised to deworm their livestock.
- Onion: Bulb initiation stage: Warm (18-25°C) humid conditions and long periods of leaf wetness (16 hours or more) favour the Leaf Blight (Blast) disease development. Spraying of Mancozeb 0.2% fungicides every 5-7 days for disease control.
- Groundnut: Vegetative stage: High relative humidity (above 85 per cent).and Heavy rainfall favour the Rust disease development. Spray mancozeb 1 kg or Wettable Sulphur 3 kg /ha.
- Ploughing-Land preparation: Plough the land across the slope to prevent the runoff and improve the soil moisture.
- Rice: Tillering stage & Panicle initiation stage- The prevailing weather condition is conducive for Bacterial leaf blight incidence. Severe winds, which cause wounds and over fertilization are suitable factors for the development of the disease. Spray neem oil 3% or NSKE 5% (or) fresh cowdung extract for the control of bacterial blight. (Dissolve 20 g cowdung in one litre of water; allow to settle and sieve. Use supernatant liquid starting from initial appearance of the disease and another at fortnightly interval. Two sprays of Copper hydroxide 77 WP@1.25 kg/ha 30 DAP &

45 DAP The prevailing weather condition is conducive for incidence of mite. To control spray Propargite 57SC @2.5ml/litre. (or) Fenazaquin 10EC @ 2ml/litre (or) Spiromasifen 240SC@ 5ml/10 litre. Presence of rain and high humidity and Presence of wind for dissemination of the spores from plant to plant favour for incidence of spread of Flase smut. Spraying of copper oxychloride @ 2.5 g/litre or Propiconazole @ 1.0 ml/litre at boot leaf and milky stages will be more useful to prevent the fungal infection.

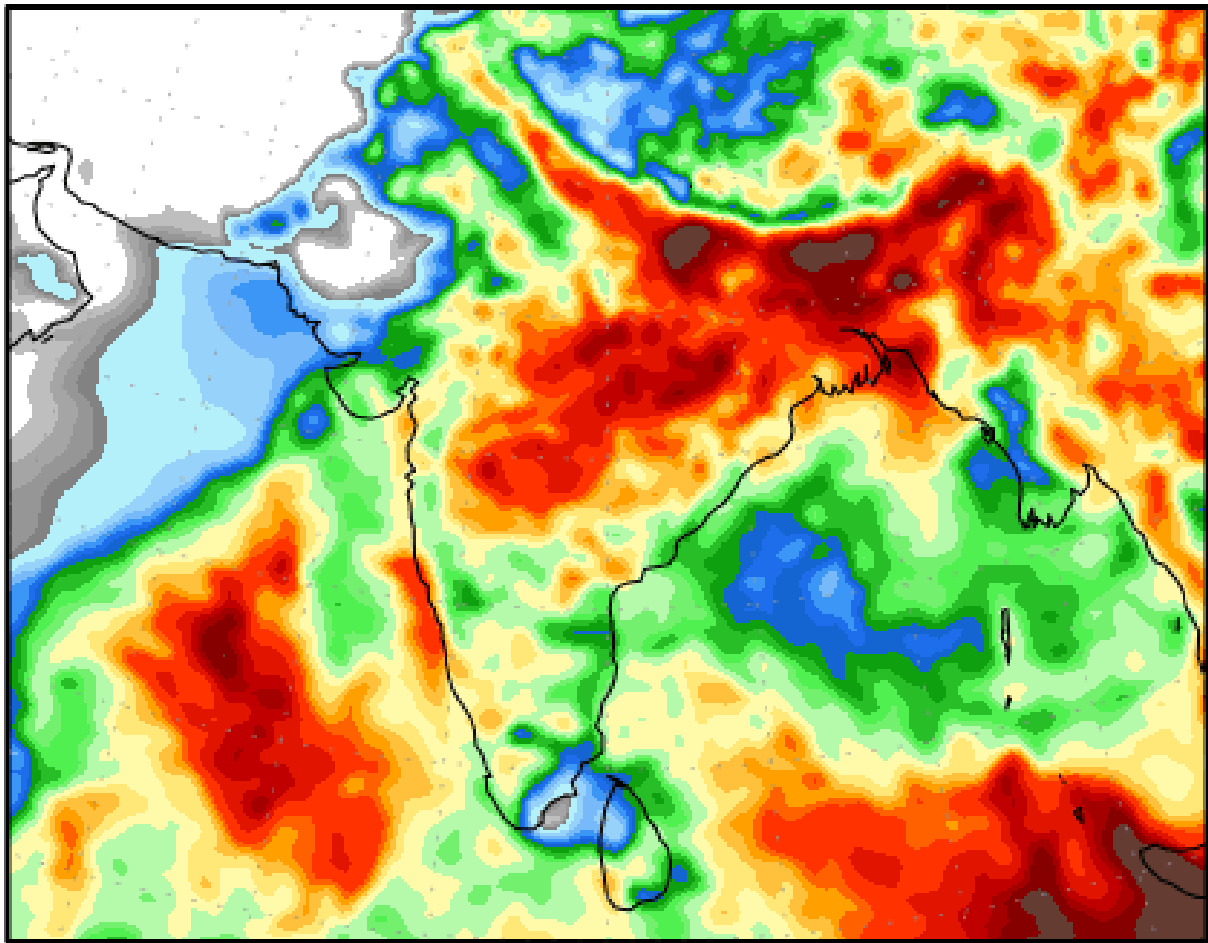
- Banana: All the stages -Panama Wilt: Symptoms - wilting and a light yellow colouring of the lower leaves, most prominent around the margins. They eventually turn a bright yellow colour with dead leaf margins. Remedies-Soil drenching of Carbendazim 0.1 per cent solution around the pseudostem at bimonthly intervals starting from five months after planting or Soil drenching of neem seed extract and apply neem cake.

SAT : INSAT-3D IMG  
IMC\_TIR1 10.8 um  
L1C Mercator

21-07-2020/(0530 to 0557) GMT  
21-07-2020/(1100 to 1127) IST



**Figure: 1. Latest available satellite picture as on 21 July 2020 at 1127 Hrs (IST). (Source: IMD).**



**Figure:2. Precipitation forecast for 21 to 29 July 2020 (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.*