

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

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

### **Daily Crop Weather Information as on 20 May 2019**

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

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

- In view of strengthening and deepening of cross equatorial flow and enhanced cloudiness and rainfall in association with a cyclonic circulation at mid-troposphere levels over Andaman Sea, Southwest Monsoon has advanced into South Andaman Sea, some parts of South Bay of Bengal and Nicobar islands on 18th May, 2019. The Northern Limit of Monsoon (NLM) continues to pass through Lat. 5°N/Long. 81°E, Lat. 7°N/Long. 88°E, Car-Nicobar and Lat. 13°N/Long. 99°E. Conditions are favorable for further advance of Southwest Monsoon into some more parts of South Bay of Bengal, North Andaman Sea & Andaman Islands during next 2-3 days.
- The Western Disturbance as a trough in mid & upper troposphere levels now seen as a cyclonic circulation over north Pakistan & adjoining Jammu & Kashmir with a trough aloft at 5.8 km above mean sea level runs roughly along Long. 72°E to the north of Lat. 32°N. It is likely to cause isolated to scattered precipitation over Western Himalayan region and isolated rain/thundershowers over adjoining plains during 21st to 23rd May.
- Heat wave conditions likely in isolated pockets over Vidarbha during next 5 days and in isolated pockets over parts of East, West and South India during next 2-3 days.
- The images showing the latest satellite picture in 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 Jammu & Kashmir and Arunachal Pradesh; at many places over Andaman & Nicobar Islands; at a few places over Assam & Meghalaya and Sub-Himalayan West Bengal & Sikkim and at isolated places over Rayalaseema, Coastal & South Interior Karnataka, Kerala, Gangetic West Bengal and Odisha. Thunderstorms observed (from 0530 hours IST yesterday to 0830 hours IST of today): at isolated places over Jammu & Kashmir, West Bengal & Sikkim, Nagaland, Manipur, Mizoram & Tripura, Andaman & Nicobar Islands, Assam & Meghalaya. Coastal & South Interior Karnataka and Rayalaseema.

- Yesterday, Heat Wave Conditions was observed in isolated pockets over Bihar, Gangetic West Bengal, Vidarbha, Madhya Maharashtra and North Interior Karnataka.
- Maximum temperature departures as on 19.05.2019: Maximum temperatures were markedly above normal (5.1°C or more) at a few places over Madhya Maharashtra; appreciably above normal (3.1°C to 5.0°C) at most places over Rayalaseema and North Interior Karnataka; at many places over Bihar, South Interior Karnataka and Kerala; at a few places over West Bengal & Sikkim and Tamilnadu & Puducherry; at isolated places over Assam & Meghalaya, Chhattisgarh, Telangana and Coastal Karnataka; above normal (1.6°C to 3.0°C) at many places over Nagaland, Manipur, Mizoram & Tripura, Arunachal Pradesh, Jharkhand, Odisha and Vidarbha and at isolated places over Jammu & Kashmir, Gujarat region, Konkan & Goa, Marathawada, Coastal Andhra Pradesh and Lakshadweep. They were below normal (-1.6°C to -3.0°C) at most places over West Rajasthan; at many places over East Rajasthan and Haryana, Chandigarh & Delhi; at a few places over Andaman & Nicobar Islands and at isolated places over West Uttar Pradesh and Madhya Pradesh and near normal over rest of the country.
- Yesterday, the highest maximum temperature of 45.6°C was recorded at Chandrapur (Vidarbha).
- Minimum temperature departures as on 20.05.2019: Minimum temperatures are appreciably above normal (3.1°C to 5.0°C) at many places over North Interior Karnataka and at isolated places over West Bengal & Sikkim, Madhya Maharashtra and Kerala; above normal (1.6°C to 3.0°C) at most places over Jharkhand; at many places over Odisha, Chhattisgarh and Rayalaseema; at a few places over Bihar, Marathawada, Telangana and South Interior Karnataka and at isolated places over Assam & Meghalaya, West Rajasthan, Gujarat state and Tamilnadu & Puducherry. They are appreciably below normal (- 3.1°C to -5.0°C) at isolated places over Himachal Pradesh and Madhya Pradesh; below normal (-1.6°C to -3.0°C) at many places over Haryana, Chandigarh & Delhi and at a few places over East Rajasthan and near normal over rest parts of the country..

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

- 20 May (Day 1): Thunderstorm & lightning accompanied with gusty winds (40-50 kmph) at isolated places very likely over South Interior Karnataka, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura and with gusty winds (30-40 kmph) at isolated places very likely over Kerala, Lakshadweep, Coastal Karnataka, Coastal Andhra Pradesh, Rayalaseema, Telangana, West Madhya Pradesh, West Bengal & Sikkim, Odisha, Jammu & Kashmir, Himachal Pradesh and Uttarakhand. Dust storm/Thunderstorm accompanied with gusty winds (30-40 kmph) at isolated places very likely over Punjab and West Rajasthan. Heat Wave

Conditions in isolated pockets very likely over Vidarbha, Chhattisgarh, Bihar, Gangetic West Bengal, Odisha, Madhya Maharashtra, Telangana, Rayalaseema, North Interior Karnataka and interior Tamilnadu.

- 21 May (Day 2): Thunderstorm & lightning accompanied with gusty winds (40-50 kmph) at isolated places very likely over South Interior Karnataka, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura and with gusty winds (30-40 kmph) at isolated places very likely over Kerala, Coastal Karnataka, West Madhya Pradesh, Sub-Himalayan West Bengal & Sikkim and Odisha. Duststorm/Thunderstorm accompanied with gusty winds (30-40 kmph) at isolated places very likely over Haryana, Chandigarh & Delhi, Uttar Pradesh and Rajasthan. Heat Wave Conditions in isolated pockets very likely over Telangana, Rayalaseema, Madhya Maharashtra, Marathawada, Vidarbha, Chhattisgarh and Odisha.
- 22 May (Day 3): Thunderstorm & lightning accompanied with squall (50-60 kmph) at isolated places likely over Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura; with gusty winds (40-50 kmph) at isolated places over South Interior Karnataka and Odisha; with gusty winds (30-40 kmph) at isolated places over Kerala, Telangana, West Madhya Pradesh, Chhattisgarh, Gangetic West Bengal, Jharkhand, Bihar, Jammu & Kashmir, Himachal Pradesh and Uttarakhand. Duststorm/Thunderstorm accompanied with gusty winds (30-40 kmph) at isolated places very likely over Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh and Rajasthan. Heavy rain at isolated places over Sub-Himalayan West Bengal & Sikkim, Andaman & Nicobar Islands, Assam & Meghalaya and Arunachal Pradesh. Heat Wave Conditions in isolated pockets very likely over Madhya Maharashtra, Marathawada and Vidarbha. Strong wind, speed reaching 40-50 kmph, likely along & off West Bengal and Odisha coasts. Fishermen are advised not to venture into Sea over these areas.
- 23 May (Day 4): Thunderstorm & lightning accompanied with squall (50-60 kmph) at isolated places likely over Sub-Himalayan West Bengal & Sikkim; with gusty winds (40-50 kmph) at isolated places over South Interior Karnataka and Odisha; with gusty winds (30-40 kmph) at isolated places over Kerala, Coastal Karnataka, Coastal Andhra Pradesh, Rayalaseema, Tamilnadu & Puducherry, Chhattisgarh, Bihar, Jammu & Kashmir and Himachal Pradesh. Duststorm/Thunderstorm accompanied with gusty winds (30-40 kmph) at isolated places very likely over Punjab and Haryana, Chandigarh & Delhi. Heavy to very heavy rain at isolated places over Assam & Meghalaya and heavy rain at isolated places over South Interior Karnataka, Sub-Himalayan West Bengal & Sikkim, Andaman & Nicobar Islands, Nagaland, Manipur, Mizoram & Tripura and Arunachal Pradesh. Heat Wave Conditions in isolated pockets very likely over Madhya Maharashtra, Marathawada and Vidarbha. Strong wind, speed reaching 40-50 kmph, likely along

& off West Bengal and Odisha coasts. Fishermen are advised not to venture into Sea over these areas.

- 24 May (Day 5): Thunderstorm & lightning accompanied with gusty winds (40-50 kmph) at isolated places over South Interior Karnataka and Odisha; with gusty winds (30-40 kmph) at isolated places over Kerala, Coastal Andhra Pradesh, Rayalaseema, Tamilnadu and Chhattisgarh. Heavy rain at isolated places over Tamilnadu & Puducherry, South Interior Karnataka, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura. Heat Wave Conditions in isolated pockets very likely over Madhya Maharashtra, Marathawada and Vidarbha. Strong wind, speed reaching 40-50 kmph, likely along & off West Bengal and Odisha coasts. Fishermen are advised not to venture into Sea over these areas.
- The weather outlook for the period of seven days *i.e* 20 to 27 May 2019 forecasted (*Provided by Real-Time Weather Forecasts from NOAA/NCEP collected from <http://monsoondata.org/wx2/>*) rain/thundershower may occur over Jammu & Kashmir, Sub-Himalayan West Bengal & Sikkim, Gangetic West Bengal, Odisha, Rayalaseema, Coastal & South Interior Karnataka, Kerala, Andaman & Nicobar Islands and North Eastern States. (Fig. 2).

## Agricultural activities (AICRPAM-CRIDA)

### **Jharkhand**

#### **Weather condition:**

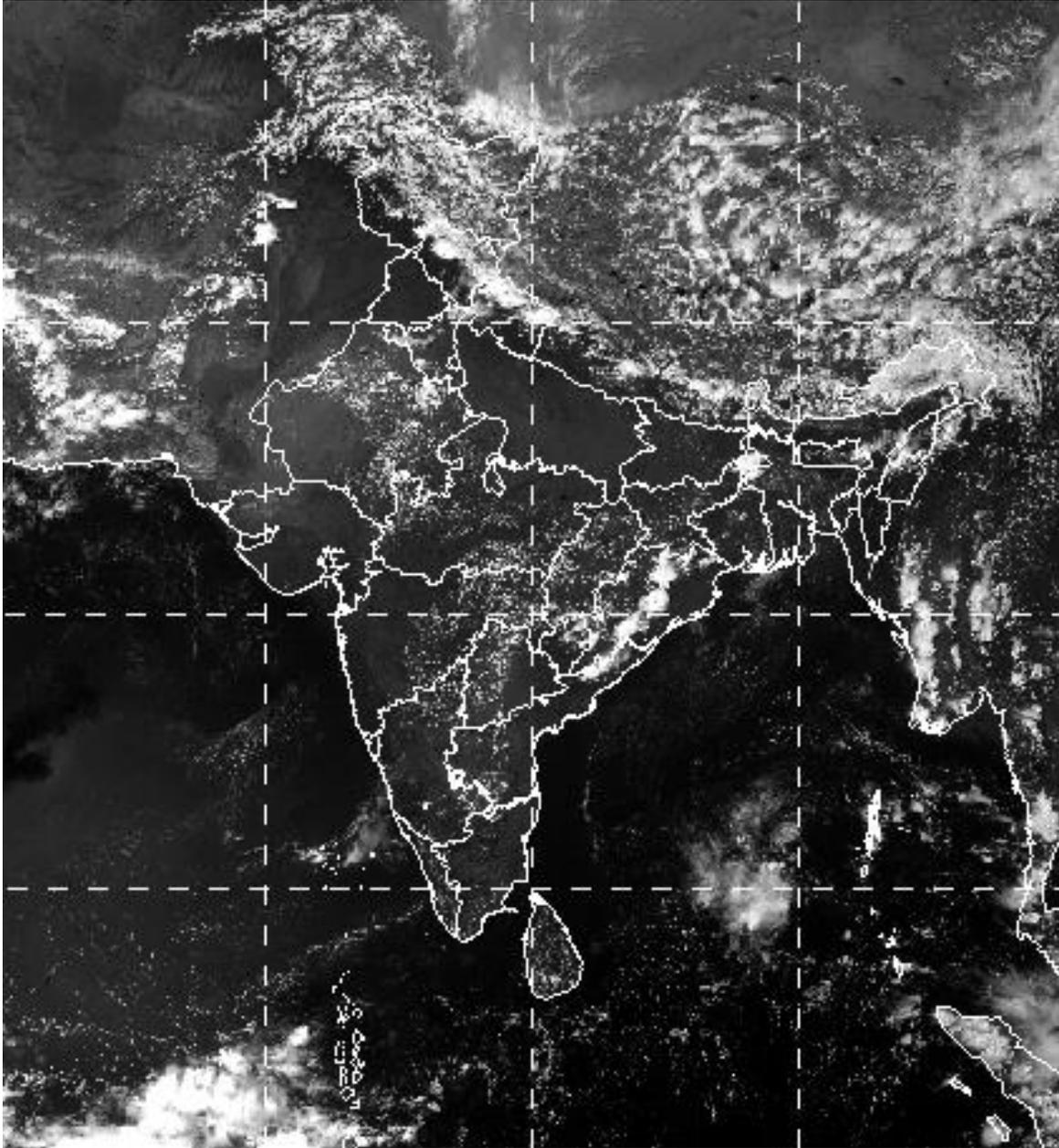
Dry weather prevailed in Jharkhand state during past few days. Average maximum temperature 41.2 °C and minimum temperature 23.6°C, respectively.

#### **Contingency measure:**

- Summer Rice: Timely transplanted crop is at grain filling stage and this stage is sensitive of moisture stress. Hence, maintain the water level in the field. Ginger/Turmeric/Elephant foot Yam - Farmers, who are going to cultivate ginger, turmeric or elephant foot yam (Oal) are advised to prepare the land and sow the seed immediately. Before sowing, a light irrigation is needed in case of deficient soil moisture. After sowing, mulch the
- field with straw / leaves etc. which not only reduces weeds but also conserve soil moisture Select one of the improved variety of Ginger: Bardhwan, Suruchi, Suprabha, Nadiya, for Turmeric: Rajendra Sonia and for Elephant foot yam: Gajendra, Vidhan, Kusum, Sri Padma. Before sowing, seeds must be treated with

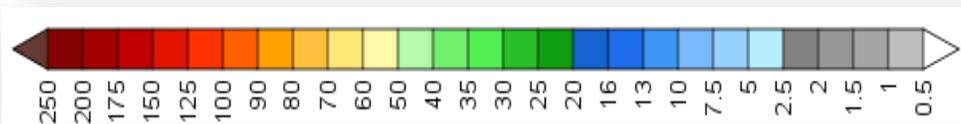
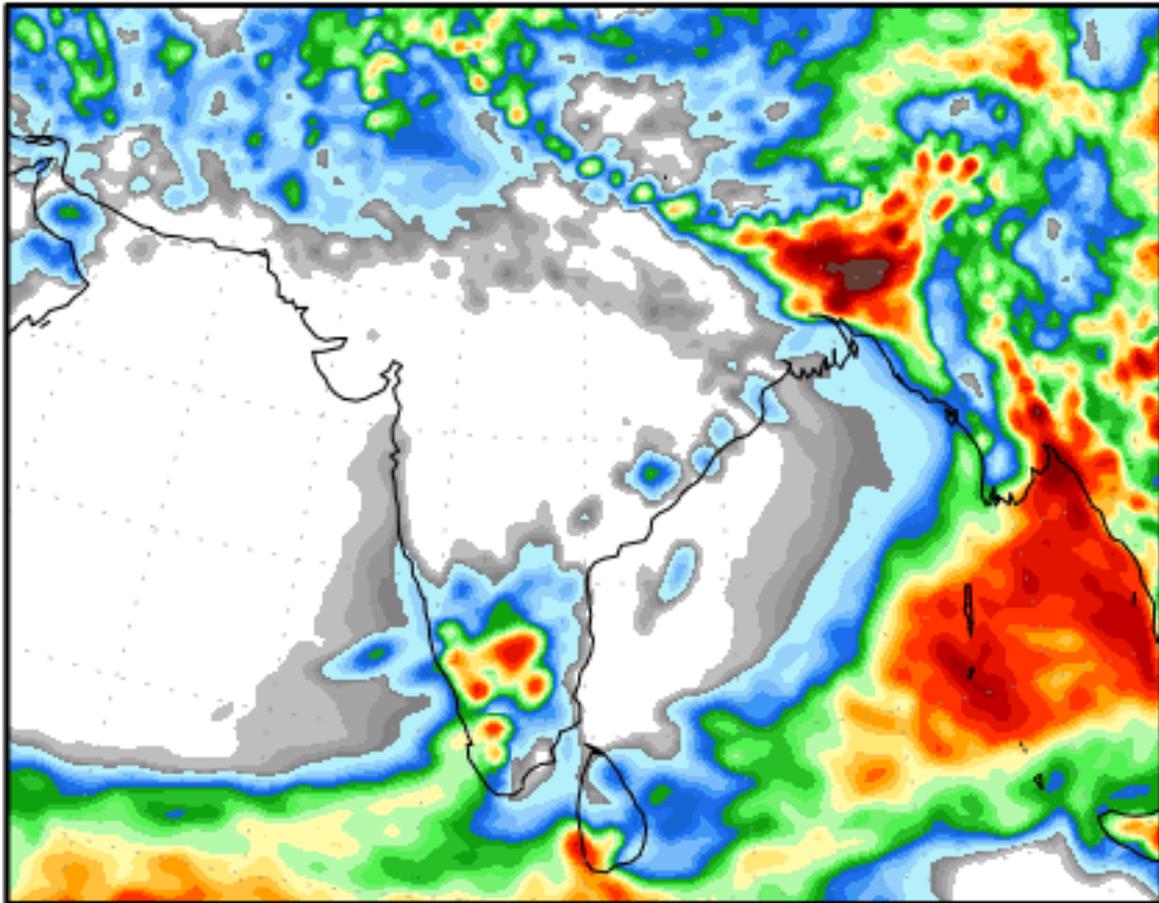
fungicide. For seed treatment 2 gm of Bavistin mix in 1 litre of water and seeds may be soaked for one hour in the solution.

- Green gram: To conserve soil moisture for a longer period, interculture operation (weeding) must be done. Vegetable; Irrigate different vegetables at the regular interval. Before irrigation, weeding is essential.
- Cattle: There is possibility of attack of Heat stroke in animals due to prevailing high day temperature. Hence, animals should be protected against intense heat and should not allow them to expose in sunlight during noon and avail fresh and plenty of water for drinking. If the animals suffering with heat stroke, they should be allow to bath, keep ice cube on their nose and head, and in extreme case, the medicine Avil should be injected @ 10 ml for adult, 5 ml for kids and 2 ml for goat.
- Green Manuring: To increase the fertility of Rice field, farmers may sow the green manure crops like Sunhamp and Dhaincha. The seed rate for both is 20-25 kg per acre.
- Fish Rearing: Add cow dung and lime in the pond as a natural foods for fishes and alternative feeds may also be used like Rice Bran and Mustard cake (each of 5 kg per day per acre area of pond).



**Figure: 1. Latest available satellite picture as on 20 May 2019 at 0230 Hrs (IST).**

**(Source: IMD).**



**Figure: 2. Precipitation forecast for 20 to 27 May 2019 (Source: NOAA NCEP).**