

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

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

### **Daily Crop Weather Information as on 20 June 2020**

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

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

- The Northern Limit of Monsoon (NLM) continues to pass through Lat. 23°N/Long. 60°E, Kandla, Ahmedabad, Indore, Raisen, Khajuraho, Fatehpur, Bahraich and Lat. 28°N/Long. 81.5°E.
- Conditions are becoming favourable for further advance of southwest monsoon into some more parts of Madhya Pradesh and Uttar Pradesh and some parts of Uttarakhand during 22nd & 23rd June and into entire Western Himalayan Region, Haryana, Chandigarh & Delhi, most parts of Punjab, remaining parts of Arabian Sea, Gujarat state, Madhya Pradesh & Uttar Pradesh and some parts of Rajasthan during 24th & 25th June.
- The trough at mean sea level now runs from central Pakistan to eastcentral Bay of Bengal across south Punjab, Haryana, south Uttar Pradesh, Jharkhand, north coastal Odisha and northwest Bay of Bengal extending upto 0.9 km above mean sea level. The cyclonic circulation over southeast Uttar Pradesh & neighbourhood persists and now seen at 1.5 km above mean sea level. Under the influence of these systems, widespread rainfall with isolated heavy to very heavy rainfall very likely to continue over east & northeast India during next 4-5 days. Fairly widespread to widespread rainfall activity with isolated with isolated heavy to very heavy falls likely over Madhya Pradesh and Chhattisgarh during next 5 days and isolated heavy falls are likely over Vidarbha during 21<sup>st</sup>-23<sup>rd</sup> June. Rainfall activity over plains of Northwest India is likely to increase from 23rd June. Isolated falls are likely to commence over the region from 23rd June.
- Heat wave conditions have abated from Rajasthan
- 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 Andaman & Nicobar Islands, Arunachal Pradesh, Sub-Himalayan West Bengal & Sikkim, Jharkhand, Bihar, Konkan & Goa, Coastal Karnataka, Kerala & Mahe and Lakshadweep; at many places over

Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Gangetic West Bengal, Odisha, Marathwada and Chhattisgarh; at a few places over East Uttar Pradesh, Haryana, Chandigarh & Delhi, Punjab, Himachal Pradesh, Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, East Rajasthan, Madhya Pradesh, Madhya Maharashtra, Vidarbha, Rayalaseema and Interior Karnataka; at isolated places over West Uttar Pradesh, Uttarakhand, West Rajasthan, Gujarat State, Coastal Andhra Pradesh, Telangana and Tamil Nadu, Puducherry & Karaikal.

- Heavy to very heavy rainfall recorded at isolated places over Odisha and Konkan & Goa; heavy rainfall at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Sub-Himalayan West Bengal & Sikkim, Jharkhand, East Uttar Pradesh, East Rajasthan, West Madhya Pradesh, Chhattisgarh and Coastal Karnataka.
- Thunderstorm observed (from 1730 hours IST yesterday to 0830 hours IST of today): at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Assam & Meghalaya, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, Rajasthan, Odisha, Madhya Pradesh, Marathawada, Chhattisgarh, Rayalaseema, Gangetic West Bengal and Bihar.
- Maximum Temperature Departures as on 19-06-2020: Maximum temperatures were appreciably above normal (3.1°C to 5.0°C) at a few places over Tamil Nadu, puducherry& Karaikal and at isolated places over Assam & Meghalaya and Saurashtra & Kutch; above normal (1.6°C to 3.0°C) at most places over Haryana, Chandigarh & Delhi; at many places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, West Rajasthan, Nagaland, Manipur, Mizoram & Tripura and Arunachal Pradesh; at a few places over Kerala & Mahe, Coastal Andhra Pradesh & Yanam, South interior Karnataka, Lakshadweep, Rayalaseema and Odisha. They were appreciably below normal (-3.1°C to -5.0°C) at most places over East Madhya Pradesh; at many places over East Uttar Pradesh and below normal (-1.6°C to -3.0°C) at many places over West Madhya Pradesh, West Uttar Pradesh, Chhattisgarh, Marathawada, Telangana and Sub-Himalayan west Bengal & Sikkim and at isolated places over Gangetic West Bengal, Andaman & Nicobar Islands and Himachal Pradesh and near normal over rest parts of the country. Yesterday, the highest Maximum temperature of 44.9°C was reported at Pilani (East Rajasthan).
- Minimum Temperature Departures as on 20-06-2020: Minimum temperatures are appreciably above normal (3.1°C to 5.0°C) at a few places over West Rajasthan; above normal (1.6°C to 3.0°C) at many places over Saurashtra & Kutch, Sub-

Himalayan West Bengal & Sikkim and Andaman & Nicobar Island; at a few places over Uttarakhand, East Rajasthan, Gujarat Region, Gangetic West Bengal, Tamil Nadu, Puducherry & Karaikal and Lakshadweep and at isolated places over Haryana, Chandigarh & Delhi, Assam & Meghalaya, Telangana and Coastal Andhra Pradesh & Yanam. They are below normal (-1.6°C to -3.0°C) at many places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad; at a few places over Himachal Pradesh and Madhya Pradesh and at isolated places over East Uttar Pradesh and Odisha and near normal over rest parts of the country. Today, the lowest minimum temperature of 21.0°C reported at Sundargarh (Odisha) over the plains of the country.

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

- 20 June (Day 1): Heavy to very heavy rainfall at isolated places very likely over Jharkhand, Odisha, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura and heavy rainfall at isolated places over East Uttar Pradesh, East Rajasthan, West Madhya Pradesh, Chhattisgarh, Bihar, West Bengal & Sikkim, Konkan & Goa, Coastal Andhra Pradesh & Yanam, Coastal Karnataka and Kerala & Mahe. Thunderstorm accompanied with lightning & gusty wind (speed reaching 30-40 kmph) very likely at isolated places over Telangana and with lightning at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, East Rajasthan, West Madhya Pradesh, Vidarbha, Bihar, Jharkhand, Madhya Maharashtra, Marathwada and Rayalaseema. Strong Wind (wind speed reaching 50-60 kmph) very likely over Southwest & adjoining Westcentral Arabian Sea; (wind speed reaching 40-50 kmph) over Eastcentral Arabian Sea. High waves (height: 3-4 m) very likely along & off Gujarat Coast. Squally Weather (wind speed reaching 40-50 kmph) over Northeast Arabian Sea and Westcentral Bay of Bengal off north Andhra Pradesh coast. Fishermen are advised not to venture into sea over these areas.
- 21 June (Day 2): Heavy to very heavy rainfall at isolated places with extremely heavy falls at isolated places very likely over Odisha; heavy to very heavy rainfall at isolated places over West Madhya Pradesh, Jharkhand and Chhattisgarh and heavy rainfall at isolated places over East Uttar Pradesh, East Rajasthan, East Madhya Pradesh, Vidarbha, Bihar, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Coastal & South Interior Karnataka, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe. Thunderstorm accompanied with

lightning very likely at isolated places over Uttarakhand, East Rajasthan, West Madhya Pradesh, Vidarbha, Bihar, Jharkhand, Madhya Maharashtra and Marathwada. Strong Wind (wind speed reaching 50-60 kmph) very likely over Southwest & adjoining Westcentral Arabian Sea; (wind speed reaching 40-50 kmph) over Eastcentral Arabian Sea. High waves (height: 3-4 m) very likely along & off Gujarat Coast. Squally Weather (wind speed reaching 40-50 kmph) over Westcentral Bay of Bengal off north Andhra Pradesh coast. Fishermen are advised not to venture into sea over these areas.

- 22 June (Day 3): Heavy to very heavy rainfall at isolated places with extremely heavy falls at isolated places very likely over West Madhya Pradesh; heavy to very heavy rainfall at isolated places over East Madhya Pradesh, Chhattisgarh, Jharkhand and Odisha and heavy rainfall at isolated places over Uttarakhand, East Rajasthan, Vidarbha, Bihar, Sub-Himalayan West Bengal & Sikkim, Andaman & Nicobar Islands, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Coastal Andhra Pradesh & Yanam, Coastal & South Interior Karnataka, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe. Thunderstorm accompanied with lightning very likely at isolated places over Himachal Pradesh, Uttarakhand, East Rajasthan, Bihar, Jharkhand, Coastal Andhra Pradesh & Yanam and Rayalaseema. Duststorm/Thunderstorm very likely at isolated places over West Rajasthan. Strong Wind (wind speed reaching 50-60 kmph) very likely over Southwest & adjoining Westcentral Arabian Sea; (wind speed reaching 40-50 kmph) over Eastcentral Arabian Sea. Fishermen are advised not to venture into sea over these areas.
- 23 June (Day 4): Heavy to very heavy rainfall at isolated places likely over Uttarakhand and heavy rainfall at isolated places over East Uttar Pradesh, East Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Jharkhand, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa and Coastal Karnataka. Thunderstorm accompanied with lightning likely at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, East Rajasthan, Jharkhand and Coastal Andhra Pradesh & Yanam. Duststorm/Thunderstorm likely at isolated places over West Rajasthan. Strong Wind (wind speed reaching 50-60 kmph) likely over Southwest & adjoining Westcentral Arabian Sea and (wind speed reaching 40-50 kmph) over Eastcentral Arabian Sea. Fishermen are advised not to venture into sea over these areas.

- 24 June (Day 5): Heavy to very heavy rainfall at isolated places likely over Uttarakhand, Uttar Pradesh, Arunachal Pradesh and Assam & Meghalaya and heavy rainfall at isolated places over Himachal Pradesh, north Haryana & Chandigarh, East Rajasthan, West Madhya Pradesh, Bihar, Sub-Himalayan West Bengal & Sikkim, Nagaland, Manipur, Mizoram & Tripura, Gujarat State, Coastal Andhra Pradesh & Yanam, Coastal Karnataka, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe. Thunderstorm accompanied with lightning likely at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, East Rajasthan, Jharkhand and Coastal Andhra Pradesh & Yanam. Strong Wind (wind speed reaching 50-60 kmph) likely over Southwest & adjoining Westcentral Arabian Sea and (wind speed reaching 40-50 kmph) over Eastcentral Arabian Sea. Fishermen are advised not to venture into sea over these areas.
- The weather outlook for seven days i.e., 20 to 28 June 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)**

### **Assam**

#### **Weather condition:**

Weather during the last week was mainly clear to partly cloudy. Daily average maximum temperature was 33.0°C which was 1.1°C above normal and the average daily minimum temperature was 24.9°C which was 0.4°C above normal for the week. Total BSSH was 25.6hrs with an average of 4.3hrs/day. The daily average evaporation rate was 3.0 mm/day and the average daily wind speed during the week was 1.9 kmph. Daily average RH during morning and afternoon hour was 95% and 78%, respectively.

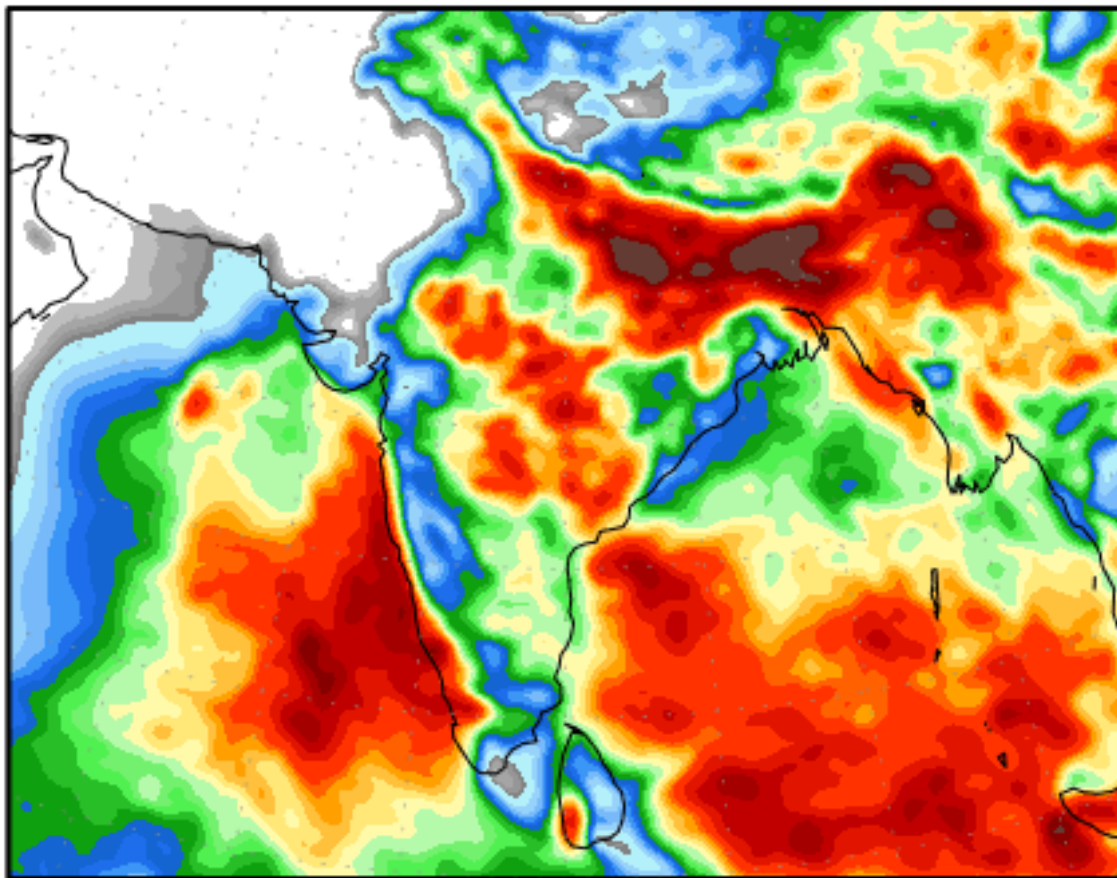
#### **Contingency measure:**

- Sali rice:- Farmers may continue main field preparation operations. Field should be prepared thoroughly by ploughing 4-5 times followed by harrowing and laddering. Ploughing should be started at least 21 days ahead of transplanting so that weeds are dried up or decayed. In nursery stage, as soon as one or two blast spots are noticed, spray Carbendazim @ 1g/lit of water. Irrigation water should be applied in furrows to maintain saturated condition in the surface soil of the nursery bed.
- Fodder crop (planting):- Planting of fodder crops may be completed within the June month. Rooted slips of recommended fodder crops like Hybrid Napier (NB 21,

IGFRI-6, CO-2), Dinanath (JP-12, Pusa 3 and Pusa 19), Setaria (Kazungula, Nandi and PSS-1) etc may be collected. The recommended spacing is 45cm between two slips. These crops can also be raised as intercrop in the arecanut and coconut orchards. Fodder cultivation helps in maintaining feedstock for livestock to circumvent the effect of fodder shortage during the flood period in Assam.

- Maize (Silking stage):- During the maturity stage of the maize crop, matured crop can be protected from bird damage by tying cobs with laves of the same plant. Harvesting should be done as soon as the husk covers turn brown and the silks are completely dry. As light to moderate rainfall is predicted in the coming 5 days, harvesting immediately after the shower should be avoided.
- Pigeon pea (Arhar):- June-July is the best time for sowing of arhar in the medium to upland condition where water inundation is not a problem. The recommended variety is T-21 with crop duration ranging from 170-200 days. Well drained sandy loam to loamy soils is most suitable for this crop. As there is no possibility of getting heavy rainfall in the coming 5 days, farmers may go for land preparation with 3-5 ploughing followed by harrowing and removing of weeds.
- Fishery:- It is the time to release new batches of fishes in ponds. Select healthy, disease free breeds of fishes from authentic source after consulting with fishery extension Officer of that locality. Raise the height of the embankment and apply nets to prevent fishes from eloping from the pond and also to avoid mixing of unwanted breeds. For composite fish farming, stocking density for different species per ha area are- 750 nos. Rahu; 1000 nos silver carp; 750 nos. Catla; 500 nos grass carp; 1000 nos. mrigal and common carp each. Stocking with fingerlings or carried over seeds of 15cm size @ 5000 per hectare of water surface area is advocated. Raise the embankment to avoid escaping of fishes.
- Livestock:- As a prophylactic measures against foot and mouth disease of cattle, wash the mouth and foot parts of the healthy animals periodically with potash solution and go for proper vaccination against these diseases. As a first hand treatment, apply Himax ointment in fresh wounds of cattle to keep wounds clean and to make free from fly nuisance and thereby hasten healing process.





**Figure:2. Precipitation forecast for 20 to 28 June 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.*