

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

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

### **Daily Crop Weather Information as on 12 January 2021**

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

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

- Under the influence of the cyclonic circulation over Comorin area & neighbourhood in lower tropospheric levels, fairly widespread to widespread rainfall with isolated heavy falls and moderate thunderstorm & lightning very likely over Tamil Nadu Puducherry & Karaikal, Kerala & Mahe and Lakshadweep during next 2-3 days and significant decrease in rainfall activity over these regions thereafter. Isolated heavy to very heavy rainfall very likely over Tamil Nadu, Puducherry & Karaikal on 12th & 13th and over Kerala & Mahe on 12th January, 2021.
- Due to the prevalence of dry north/northwesterly winds minimum temperature very likely to be below normal over most parts of Northwest India during next 4-5 days which are very likely to cause Cold Day/Severe Cold Day conditions at some parts of Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh and Uttarakhand during next 3 days. Cold Wave/Severe Cold Wave conditions at some parts also very likely over Punjab, Haryana, Chandigarh & Delhi and in isolated parts over Uttar Pradesh, north Madhya Pradesh and Rajasthan during next 3 days. Ground Frost is also very likely in isolated pockets over south Punjab, Haryana & Chandigarh and north Rajasthan during next 2 days.
- Dense to very dense fog conditions at isolated places very likely over Northwest India during next 4-5 days
- The images showing the latest satellite picture in the figure. 1.

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

- Rain/Thundershowers observed (during 0830 hours IST of yesterday 0830 hours IST of today): at many places over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe and Lakshadweep; at a few places over Arunachal Pradesh and at isolated places over Andaman & Nicobar Islands, Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya and South Interior Karnataka.

- Heavy to very heavy rainfall observed at isolated places over Tamilnadu, Puducherry & Karaikal.
- Yesterday, Cold Day to Severe Cold Day conditions observed at isolated places over Punjab and Uttar Pradesh and Cold Day conditions at isolated places over Haryana & Delhi.
- Cold Wave conditions observed at isolated places over Rajasthan and Haryana, Chandigarh & Delhi.
- Fog observed (at 0830 hours IST of today): Very Dense fog at isolated places over West Rajasthan and Uttar Pradesh and Dense fog at isolated places over Jammu division, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi and Sub-Himalayan West Bengal & Sikkim.
- Maximum Temperature Departures as on 11-01-2021: Maximum temperatures were markedly above normal (5.1°C or more) at a few places over Vidarbha, Chhattisgarh and Odisha; at isolated places over Himachal Pradesh and Gangetic West Bengal; appreciably above normal (3.1°C to 5.0°C) at most places over Jharkhand; at a few places over Konkan & Goa; at isolated places over Saurashtra & Kutch, Madhya Maharashtra, East Madhya Pradesh, Coastal Andhra Pradesh & Yanam and Telangana; above normal (1.6°C to 3.0°C) at most places over Marathwada and Nagaland, Manipur, Mizoram & Tripura; at many places over Uttarakhand; at a few places over Bihar; at isolated places over Gujarat region and Karnataka. They were markedly below normal (-5.1°C or less) at many places over West Uttar Pradesh; at a few places over East Uttar Pradesh; at isolated places over Punjab; appreciably below normal (-3.1°C to -5.0°C) at many places over Haryana, Chandigarh & Delhi; at a few places over Assam & Meghalaya; at isolated places over Tamil Nadu. Puducherry & Karaikal; below normal (-1.6°C to -3.0°C) at many places over Kerala & Mahe and Arunachal Pradesh; at a few places over Jammu, Kashmir, Ladakh, Gilgistan, Baltistan & Muzaffrabad, Andaman & Nicobar Islands, Sub-Himalayan West Bengal and East Rajasthan; at isolated places over West Madhya Pradesh, Rayalaseema and Lakshadweep and near normal over rest parts of the country. Yesterday, the highest maximum temperature of 35.3°C was reported at Ratnagiri (Konkan & Goa) over the country.
- Minimum Temperature Departures as on 12-01-2021: Minimum temperatures are markedly above normal (5.1°C or more) at many places over Jharkhand, Madhya Maharashtra and Assam & Meghalaya; at a few places over Vidarbha; at isolated places over Sub-Himalayan West Bengal, Madhya Pradesh, Odisha and Konkan & Goa; appreciably above normal (3.1°C to 5.0°C) at most places over Uttarakhand

and Arunachal Pradesh; at many places over Gujarat region, Chhattisgarh, Nagaland, Manipur, Mizoram & Tripura and Coastal Karnataka; at a few places over Saurashtra & Kutch, Gangetic West Bengal, Tamilnadu, Puducherry & Karaikal and Andaman & Nicobar Islands and at isolated places over Himachal Pradesh; above normal (1.6°C to 3.0°C) at many places over Bihar, Rayalaseema, Coastal Andhra Pradesh & Yanam, Telangana, Kerala & Mahe and Interior Karnataka and at a few places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad. They are appreciably below normal (-3.1°C to -5.0°C) at a few places over East Rajasthan; at isolated places over East Uttar Pradesh and Haryana, Chandigarh & Delhi; below normal (-1.6°C to -3.0°C) at a few places over West Rajasthan; at isolated places over West Uttar Pradesh. The lowest minimum temperature of 1.5°C reported at Sikar (East Rajasthan) over the plains of the country.

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

- 12 January (Day 1): Heavy to very heavy rainfall at isolated places very likely over Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe and heavy rainfall at isolated places over Lakshadweep. Thunderstorm accompanied with lightning at isolated places very likely over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe and Lakshadweep. Dense to very dense fog conditions at isolated places very likely over Sub-Himalayan West Bengal & Sikkim, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, north Rajasthan and Dense fog at isolated places over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Bihar and south Assam. Cold Wave to severe Cold Wave conditions in some pockets very likely over Punjab, Haryana, Chandigarh & Delhi and in isolated pockets over Rajasthan and Cold Wave conditions in isolated pockets over Uttar Pradesh and north Madhya Pradesh. Cold Day to severe Cold Day conditions in some pockets very likely over Punjab, Haryana, Chandigarh & Delhi and West Uttar Pradesh and in isolated pockets over East Uttar Pradesh and Cold Day conditions in isolated pockets over Uttarakhand. Ground Frost very likely in isolated pockets over south Punjab, Haryana & Chandigarh and north Rajasthan. Squally weather (wind speed reaching 45-55 kmph) very likely over Lakshadweep-Maldives area and off Kerala coast, Comorin and Gulf of Mannar. Fishermen are advised not to venture into these area.
- 13 January (Day 2): Heavy to very heavy rainfall at isolated places very likely over Tamil Nadu, Puducherry & Karaikal and heavy rainfall at isolated places over Lakshadweep and Kerala & Mahe. Thunderstorm accompanied with lightning at isolated places very likely over Tamil Nadu, Puducherry & Karaikal, Kerala &

Mahe and Lakshadweep. Dense to very dense fog conditions at isolated places very likely over Sub-Himalayan West Bengal & Sikkim, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, north Rajasthan and Dense fog at isolated places over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Bihar and south Assam. Cold Wave to severe Cold Wave conditions in some pockets very likely over Punjab, Haryana, Chandigarh & Delhi and in isolated pockets over Rajasthan and Cold Wave conditions in isolated pockets over Uttar Pradesh and north Madhya Pradesh. Cold Day to severe Cold Day conditions in some pockets very likely over Punjab, Haryana, Chandigarh & Delhi and West Uttar Pradesh and in isolated pockets over East Uttar Pradesh and Cold Day conditions in isolated pockets over Uttarakhand. Ground Frost very likely in isolated pockets over south Punjab, Haryana & Chandigarh and north Rajasthan. Squally weather (wind speed reaching 45-55 kmph) very likely over Lakshadweep-Maldives area, Comorin and Gulf of Mannar. Fishermen are advised not to venture into these area.

- 14 January (Day 3): Heavy rainfall at isolated places very likely over Tamilnadu, Puducherry & Karaikal. Thunderstorm accompanied with lightning at isolated places very likely over Tamilnadu, Puducherry & Karaikal, Kerala & Mahe and Lakshadweep. Dense to very dense fog conditions at isolated places very likely over Sub-Himalayan West Bengal & Sikkim, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh and Dense fog at isolated places over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura. Cold Wave to severe Cold Wave conditions in isolated pockets very likely over Punjab, Haryana, Chandigarh & Delhi and Cold Wave conditions in isolated pockets over Rajasthan and Uttar Pradesh. Cold Day to severe Cold Day conditions in some pockets very likely over Punjab, Haryana, Chandigarh & Delhi and West Uttar Pradesh and in isolated pockets over East Uttar Pradesh and Cold Day conditions in isolated pockets over Uttarakhand.
- 15 January (Day 4): Thunderstorm accompanied with lightning at isolated places likely over Kerala & Mahe and Lakshadweep. Dense to very dense fog conditions at isolated places likely over Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh and Dense fog at isolated places over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura. Cold Wave conditions in isolated pockets likely over Rajasthan. Cold Day conditions in isolated pockets likely over Uttarakhand.
- 16 January (Day 5): Dense to very dense fog conditions at isolated places likely over Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh and Dense fog at

isolated places over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura. Cold Day conditions in isolated pockets likely over Uttarakhand.

\* Red color warning does not mean "Red Alert" R

- The weather outlook for seven days i.e., 12 to 20 January 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 lower and Actual minimum temperature was 3.6 °C higher as compared to its normal. Total BSS was 28.6 hrs. with an average of 4.1 hrs. The daily average evaporation and wind speed was 2.7 mm and 3.4 km/hr respectively. The daily average RH during morning and afternoon was 77.4 % and 47.6 % respectively.

#### **Contingency measure:**

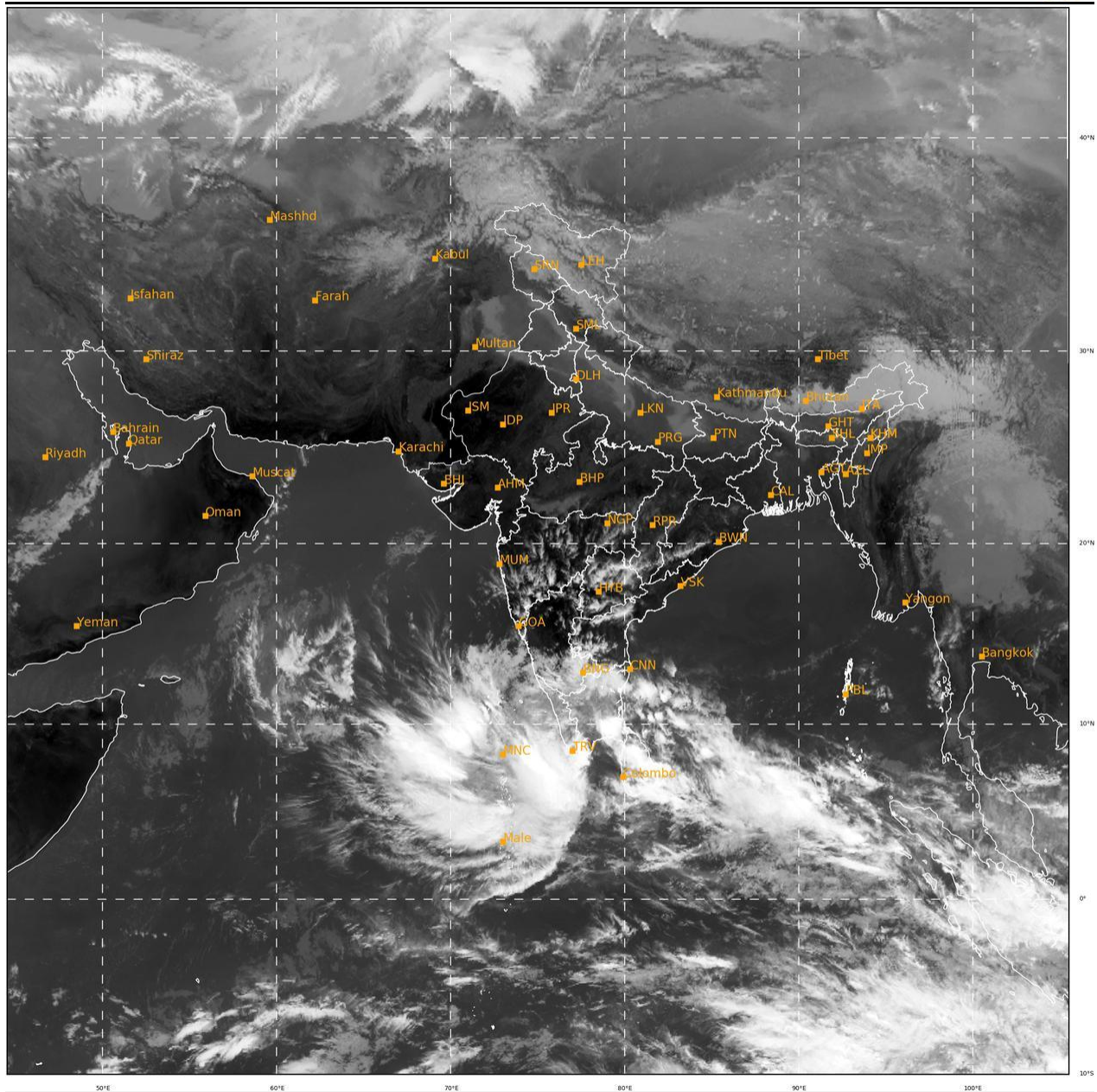
- Wheat: CRI/ Tillering: To control termite apply chlorpyrifos 20 EC 2 to 2.5 lit./ hect. with irrigation water. To avoid moisture stress irrigate crop after 21 days of sowing. Carried out weeding and interculturing operations.
- Mustard : Reproductive : Apply irrigation according to soil type and climatic condition.
- Aphid: Apply 500 gm (5% arc) neem seed powder or 20 ml (1 EC) to 40 ml (0.15 EC) neem based readymade solution in 10 liter of water in evening time. For control of powdery mildew of mustard, spray sulfur 80 WP 25 g or Dinocap 48 EC 5 ml or Hexaconazole 5 EC 5 ml per 10 liter water. Spray should be done after 15 days interval according to intensity of disease.
- Tobacco : inter-culturing and weeding is advised. Carried out topping operation at flowering initiation stage. De-suckering should be done regularly.
- Gram: vegetative: inter-culturing and Hand weeding should be done. Apply irrigation, if required. Nipping should be done.
- Castor : boll development: Semi looper : Apply supplementary dose of nitrogen @ 40 kg ha<sup>-1</sup> in form of urea. Carryout inter-culturing and weeding operations. Spray Quinalphos 20 ml in 10 liters of water at 15 days interval.

- Vegetables : Flowering/Reproductive : For the control of White fly/Aphid Spray neem seed extract 500 ml or neem seed oil 50 ml in 10 liter of water at 15 days interval (4 sprays) or acetamiprid 20 % SP@ 5.0 gm/10 lit of water at 15 days interval.
- Tomato: Vegetative Growth: there is possibility of incidence of spotted wilt virus, spray Carbendazim (50 % WP) 5 g in 10 liter water at 10 to 12 days interval.
- Potato: Sowing: Deep ploughing 2-3 times and make furrow at 45cm for sowing of potato.
- Cattle: Keep animal shed hygienic and clean to avoid flies and mosquitoes. Disease (like, Anthracis, milk fever and Brucellosis) infected animals to regular check-up and regular vaccination for the animal.



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

12-01-2021/(0730 to 0756) GMT  
 12-01-2021/(1300 to 1326) IST

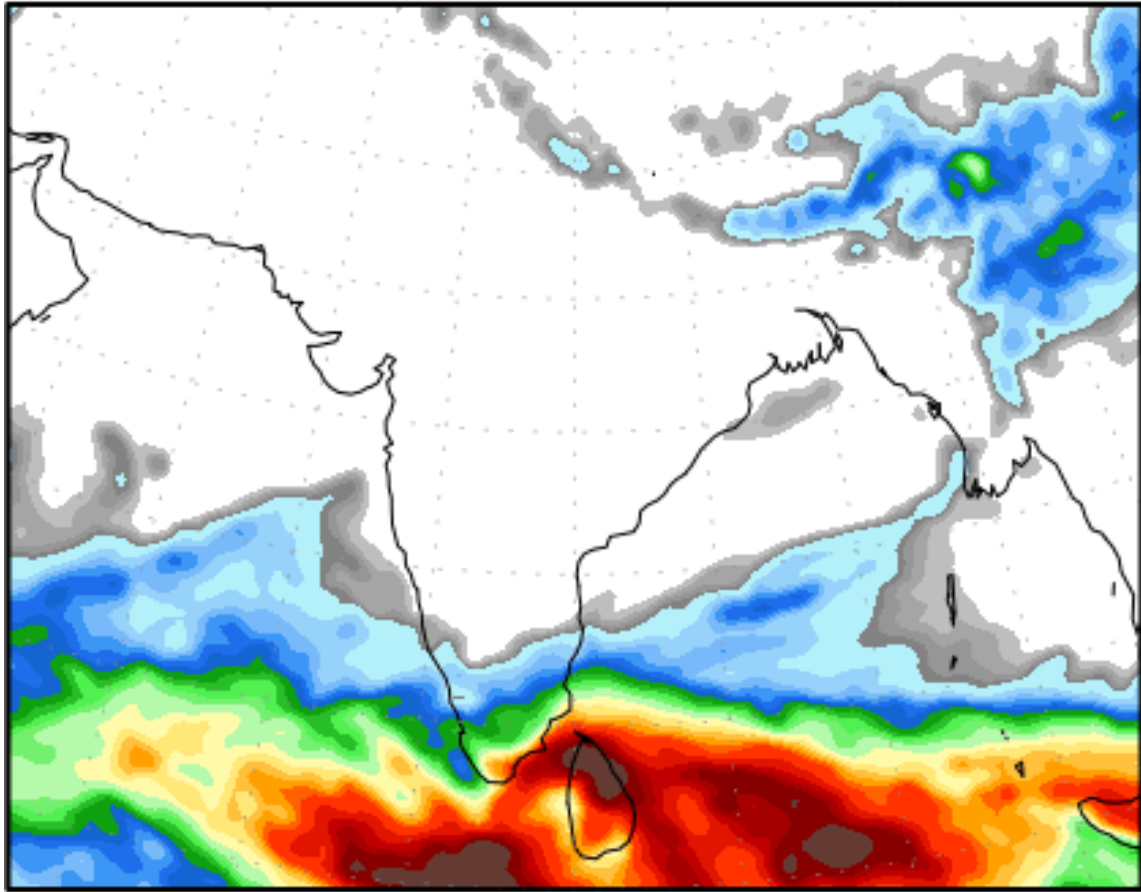


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IMD, DELHI

**Figure: 1. Latest available satellite picture as on 12 January 2021 at 1326 Hrs (IST).  
 (Source: IMD).**



**Figure:2. Precipitation forecast for 12 to 20 January 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.*