

All India Coordinated Research Project on Agrometeorology

CRIDA, Santoshnagar, Hyderabad – 500 059

Daily Crop Weather Information as on 31 December 2020

Attention: Rajiv Maheshwari, OSD, ICAR

Significant Weather Features (IMD)

- A fresh active Western Disturbance likely to affect Western Himalayan Region & adjoining plains from 03rd January, 2021 onwards. It is very likely to cause light/moderate scattered to fairly widespread rainfall/snowfall over Western Himalayan region during 03rd-06th January, 2021.
- Due to interaction between the above Western Disturbance and lower level easterlies from Bay of Bengal, scattered to fairly widespread rainfall accompanied with thunderstorm/hailstorm at isolated places likely over Punjab, Haryana, Chandigarh & Delhi, north Rajasthan, West Uttar Pradesh and northwest Madhya Pradesh during 02nd-05th January with maximum intensity on 04th & 05th January, 2021.
- Due to likely southeasterlies winds over Northwest and Central India, minimum temperatures very likely to rise gradually by 3-5°C over most parts of Northwest and Central India during next 4-5 days.
- Cold Wave to Severe Cold Wave conditions in isolated to some pockets very likely over Himachal Pradesh, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, Rajasthan and West Madhya Pradesh during next 24 hours and abatement of Cold Wave conditions from these regions thereafter.
- Cold Day to Severe Cold Day conditions in isolated to some pockets very likely over Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh and West Madhya Pradesh during next 2 days and over Himachal Pradesh during next 24 hours.
- Dense to very dense fog in some pockets very likely over Punjab, Haryana, Chandigarh & Delhi and Uttar Pradesh and dense fog in isolated pockets very likely over Bihar, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura during next 2 days and over Uttarakhand, West Madhya Pradesh during next 24 hours.
- Ground Frost conditions in isolated pockets very likely over Punjab, Haryana, Chandigarh & Delhi and north Rajasthan during next 24 hours
- 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 many places over Tamilnadu, Puducherry & Karaikal and at isolated places over Coastal & South Interior Karnataka and Kerala & Mahe.
- Cold Wave to Severe Cold Wave Conditions observed in many pockets over Punjab and Haryana, Chandigarh & Delhi; in isolated pockets over Rajasthan and Cold Wave Conditions in isolated pockets over Uttar Pradesh, Himachal Pradesh, northwest Madhya Pradesh and Saurashtra & Kutch.
- Yesterday, Cold Day in many pockets with Severe Cold Day Conditions in isolated pockets observed over Haryana, Chandigarh & Delhi, West Madhya Pradesh; Cold Day to Severe Cold Day Conditions in isolated pockets over West Uttar Pradesh and Cold Day Conditions in isolated pockets over Punjab, north Rajasthan and East Madhya Pradesh.
- Fog observed during 2030 hours IST of yesterday to 0830 hours IST of today: Dense to very dense fog in many pockets over Punjab; in some pockets over Haryana, Chandigarh & Delhi and in isolated pockets over northwest Madhya Pradesh, Uttar Pradesh and Uttarakhand and Moderate to Dense fog in isolated pockets over Himachal Pradesh.
- Maximum Temperature Departures as on 30-12-2020: Maximum temperatures were appreciably above normal (3.1°C to 5.0°C) at isolated places over Assam & Meghalaya and South Interior Karnataka; above normal (1.6°C to 3.0°C) at many places over Jharkhand and North Interior Karnataka; at a few places over Sub-Himalayan West Bengal & Sikkim, Konkan & Goa, Odisha and Chhattisgarh and at isolated places over Arunachal Pradesh, Madhya Maharashtra, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal. They were markedly below normal (-5.1°C or less) at most places over Haryana, Chandigarh & Delhi; at a few places over West Uttar Pradesh and West Madhya Pradesh and at isolated places over East Madhya Pradesh; appreciably below normal (-3.1°C to -5.0°C) at many places over Rajasthan and Gujarat region; at a few places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Punjab and Saurashtra & Kutch and isolated places over East Uttar Pradesh and below normal (-1.6°C to -3.0°C) at isolated places over Himachal Pradesh and Andaman & Nicobar Islands and near normal over rest parts of the country. Yesterday, the highest maximum temperature of 36.0°C was reported at Kottayam (Kerala) over the country.
- Minimum Temperature Departures as on 31-12-2020: Minimum temperatures are appreciably above normal (3.1°C to 5.0°C) at most places over Coastal Karnataka; at many places over Marathawada, North Interior Karnataka, Rayalaseema and Kerala

& Mahe; at a few places over Lakshadweep and Tamil Nadu, Puducherry & Karaikal; at isolated places over Madhya Maharashtra, Telangana and Andaman & Nicobar Islands; above normal (1.6°C to 3.0°C) at many places over South Interior Karnataka and Coastal Andhra Pradesh & Yanam; at isolated places over Konkan & Goa and East Madhya Pradesh. They are markedly below normal (-5.1°C or less) at isolated places over East Rajasthan; appreciably below normal (-3.1°C to -5.0°C) at many places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad and Haryana, Chandigarh & Delhi; at a few places over West Madhya Pradesh and Saurashtra & Kutch; at isolated places over Himachal Pradesh, West Rajasthan, East Uttar Pradesh and Gangetic West Bengal; below normal (-1.6°C to -3.0°C) at many places over Uttarakhand, Punjab and West Uttar Pradesh; at a few places over Sub-Himalayan West Bengal & Sikkim; at isolated places over Gujarat region and near normal over rest parts of the country. The lowest minimum temperature of -1.3°C reported at Churu (West Rajasthan) over the plains of the country.

Weather Warning during the next 5 days (IMD)

- 31 December (Day 1): Cold Wave to Severe Cold Wave conditions very likely in isolated pockets over Rajasthan and West Uttar Pradesh and Cold Wave conditions in some pockets over Punjab and Haryana, Chandigarh & Delhi and in isolated pockets over Himachal Pradesh, West Madhya Pradesh and East Uttar Pradesh. Cold Day to Severe Cold Day conditions very likely in some pockets over Punjab, Haryana, Chandigarh & Delhi; in isolated pockets over Uttar Pradesh and Cold Day conditions in isolated pockets over Himachal Pradesh and Madhya Pradesh. Dense to Very Dense Fog very likely in some pockets over Punjab and Haryana, Chandigarh & Delhi and in isolated pockets over Uttar Pradesh and Dense fog in isolated pockets over Uttarakhand, West Madhya Pradesh, Bihar, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura. Ground Frost very likely at isolated places over Punjab, Haryana, Chandigarh & Delhi and north Rajasthan. Heavy rainfall very likely at isolated places over interior Tamil Nadu. Thunderstorm accompanied with lightning very likely at isolated places over South Interior Karnataka, Lakshadweep, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal.
- 01 January (Day 2): Cold Wave to Severe Cold Wave conditions very likely in isolated pockets over West Uttar Pradesh. Cold Day to Severe Cold Day conditions very likely in isolated pockets over West Uttar Pradesh and Cold Day conditions in isolated pockets over Punjab, Haryana, Chandigarh & Delhi, East Uttar Pradesh and Madhya Pradesh. Dense Fog very likely in isolated pockets

over Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, Bihar, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.

- 02 January (Day 3): Thunderstorm accompanied with lightning very likely at isolated places over Punjab, Haryana, Chandigarh & Delhi, north West Uttar Pradesh, East Rajasthan and West Madhya Pradesh.
- 03 January (Day 4): Thunderstorm accompanied with hail & lightning likely at isolated places over Punjab, Haryana, Chandigarh & Delhi, north West Uttar Pradesh, East Rajasthan and thunderstorm accompanied with lightning at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad, West Madhya Pradesh and Tamilnadu, Puducherry & Karaikal.
- 04 January (Day 5): Thunderstorm accompanied with hail & lightning likely at isolated places over Jammu & Kashmir, Muzaffarabad, Punjab, Haryana, Chandigarh & Delhi, north West Uttar Pradesh, East Rajasthan and thunderstorm accompanied with lightning at isolated places over West Madhya Pradesh, Kerala & Mahe, Lakshadweep and Tamil Nadu, Puducherry & Karaikal. Heavy rain/snow likely at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad. Heavy rainfall likely at isolated places over Punjab.
- The weather outlook for seven days i.e., 31 December to 08 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)

Madhya Pradesh

Weather condition:

High Tmax.: 35 C at Hoshangabad district - Loe Tmijn.: 3 C at Umaria district - Rain: No rains. State remains dry. - Day and Night temperature: Normal over the state. Dry conditions prevail over the state - Cold day: observed ion north and north-west part of the state - Cold wave: observed in Bundelkhand region of the state - Ground frost: Observed in north districts of the state that come under Gird ACZ.

Contingency measure:

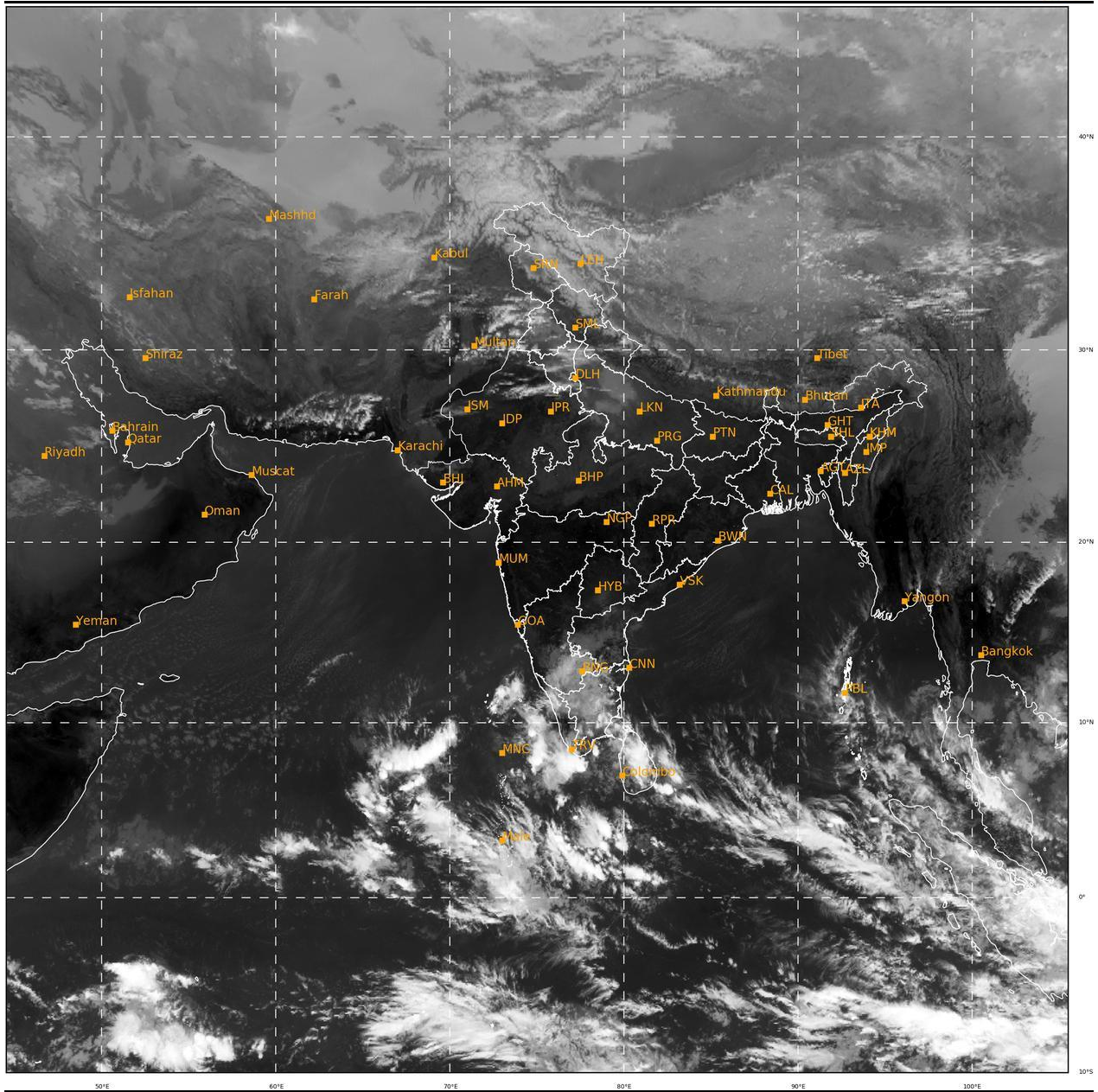
- If sufficient moisture is available in wheat field, then broadcast urea in the field. Care should be taken that leaves should not be wet, and urea should not get stick to it.
- Chickpea: Farmers are advised to monitor the chickpea crop and when pest reaches at ETL level (2 or more than two caterpillar per meter row length) the spray of

quinalphos 20E.C @ 2.0 ml. per liter of water is recommended. It is also advised that farmers may use bird percher at the distance of 20 fit all over the field.

- Mustard: Apply second irrigation before flowering. Incorporate remaining nitrogenous fertilizer after irrigation.
- Arhar: Control measure should apply if infestation of insect pest occurred. For control leaf roller capsule borer, gram pod borer and pod fly insect seen in the field apply 2 ml chlorpyrifos or imidachlopride per lit. Water.
- Vegetables: Due to low temperature it is advisable to apply irrigation to chilli, brinjal, and tomato vegetables to safe the quality of produce. Earthening is required in late sown potato crops. Irrigation of fertilizer recommended for cauliflower, cabbage, carrot, bracoly radish and onion.
- Fruits : Irrigation required Citrus, Guava and Aonla etc because of cold wave and frost. Mature fruit Citrus, Guava and Aonla for harvesting therefore to be market.
- General Advice: Forecast of weather with no clouds and rainfall, hence possible to irrigate wheat along with top dressing of urea in the field and dry leaves conditions. Late wheat should be planted after cultivating the pea field. Weather will be clear with the possibility of frost. As this time the night temperature is low and there is possibility of cold wave there for protection of pulse and oil seed crops smoke or light irrigation. Wheat & Irrigate early planted Barseem crop after each cutting.
- Animal Husbandry: Sowing of green fodder like berseem and lucern crops for the cattle feed. Humid weather condition is prevailed hence keep cattles in dry and clean place. Create neem leaves smoke in night to save them from mosquitoes and bees. Save calves from cold (night temperature) use heater, curtains to save them.
- Poultry: Protect poultry birds from cold by using electric bulb (300W for 100 ft.2) to prevent Coryza disease.

SAT : INSAT-3D IMG
IMG_TIR1 10.8 um
L1C Mercator

31-12-2020/(0630 to 0656) GMT
31-12-2020/(1200 to 1226) IST



444

925

IMD, DELHI

Figure: 1. Latest available satellite picture as on 31 December 2020 at 1226 Hrs (IST).
(Source: IMD).

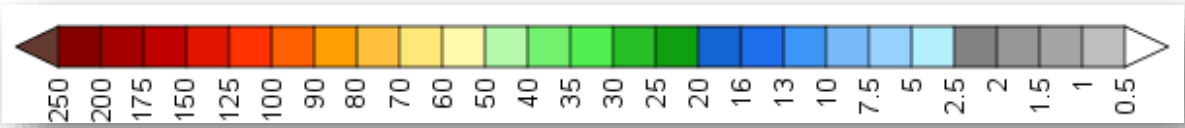
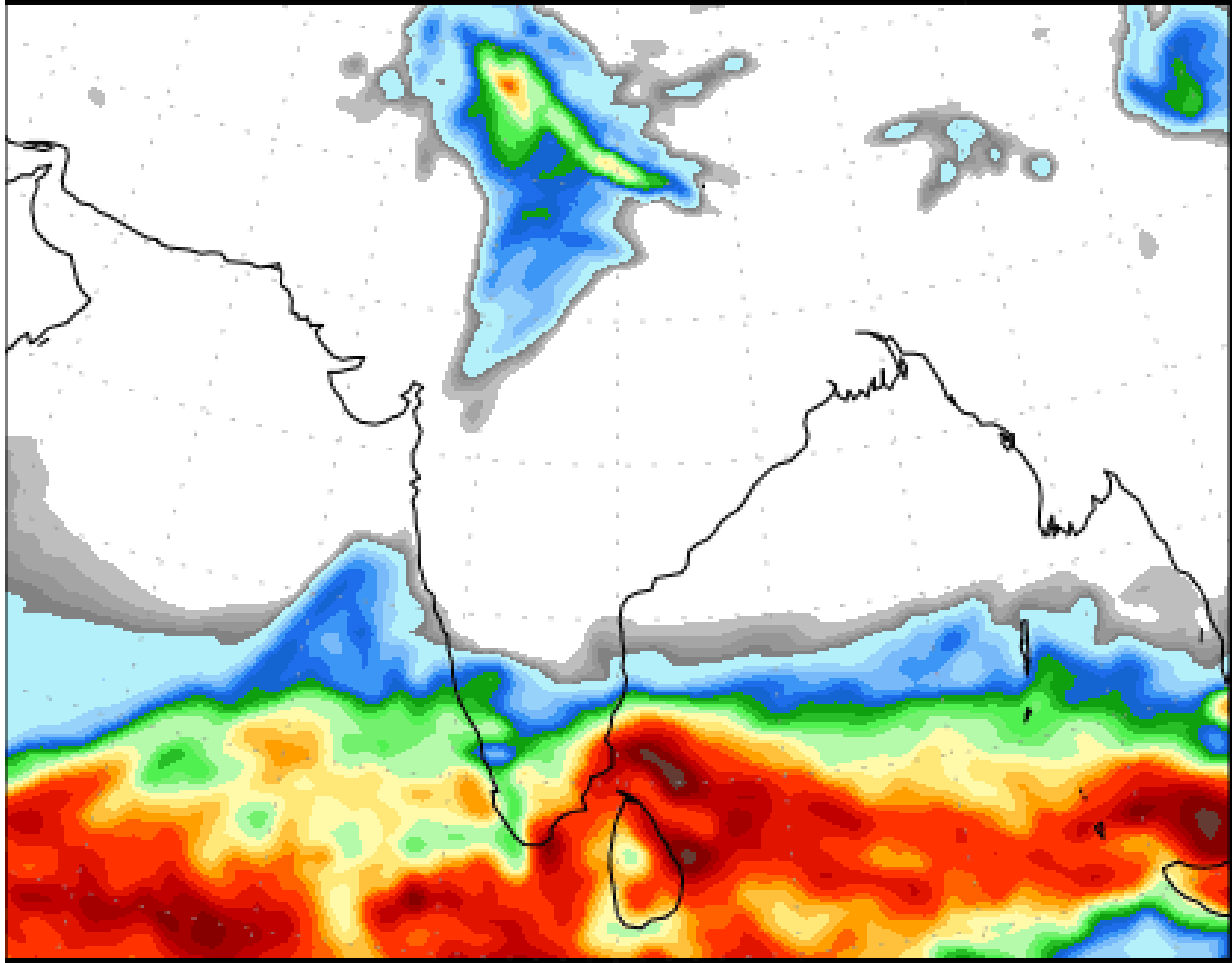


Figure:2. Precipitation forecast for 31 Dec to 08 Jan 2021 (Source: NOAA NCEP).

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