

All India Coordinated Research Project on Agrometeorology

CRIDA, Santoshnagar, Hyderabad – 500 059

Daily Crop Weather Information as on 31 January 2022

Attention: Rajiv Maheshwari, OSD, ICAR

Significant Weather Features (IMD)

- A feeble Western Disturbance as a trough in middle tropospheric westerlies runs along Long.71°E to the north of Lat. 33°N. It is very likely to cause isolated rainfall/snowfall over Jammu-Kashmir-Ladakh on 31st January, 2022.
- An active Western Disturbance is very likely to affect Northwest India from 02nd February, 2022. An induced cyclonic circulation is very likely to form over West Rajasthan & neighbourhood on 03rd February, 2022. In addition, moisture feeding from Arabian Sea and Bay of Bengal to northwest India at lower & middle tropospheric levels is also very likely on 02nd & 03rd February, 2022. High moisture feeding from Bay of Bengal at lower tropospheric levels to East & adjoining northeast India very likely on 03rd & 04th February, 2022.
- Another Western Disturbance likely to affect Western Himalayan Region from 06th February, 2022.
- Rainfall Forecast & Warnings:
- Under the influence of a fresh active Western Disturbance & its induced cyclonic circulation;
 - i) Fairly widespread to widespread light/moderate rainfall/snowfall very likely over Western Himalayan Region during 02nd to 04th February. Isolated hailstorm likely over Jammu division, Himachal Pradesh on 02nd & 03rd February and over Uttarakhand on 03rd & 04th February, 2022.
 - ii) Isolated light rainfall very likely over Punjab, Haryana & Chandigarh on 2nd; Fairly widespread to widespread light/moderate rainfall very likely over Punjab, Haryana, Chandigarh, Delhi and Uttar Pradesh 03rd & 04th February with its peak intensity on 03rd February, 2022.
- Due to confluence between lower levels westerlies associated Western Disturbance and lower level southeasterlies from the Bay of Bengal at lower tropospheric levels:
 - i) Scattered to fairly widespread light/moderate rainfall with thunderstorm/lightning likely over Bihar, Jharkhand, West Bengal & Sikkim and Odisha on 03rd & 04th with possibility of isolated hailstorm on Jharkhand and

Odisha 04th February. Isolated heavy rainfall also likely over Bihar and West Bengal & Sikkim on 04th February.

ii) Scattered to fairly widespread light/moderate rainfall with thunderstorm/lightning likely over northeast India 04th & 05th February, 2022.

- Cold day conditions in isolated pockets very likely over north Uttar Pradesh during next 24 hours and abate from tomorrow.
- Dense to very dense Fog in isolated pockets in night/morning hours very likely over Terai belt of Uttar Pradesh during next 48 hours; dense fog in isolated pockets over Bihar during next 48 hours and over Himachal Pradesh, Uttarakhand, Punjab, Haryana during next 24 hours and over Odisha on 03rd February.
- The images showing the latest satellite picture in the figure. 1.

Main Weather Observations (IMD)

- Rainfall/thundershower observed (from 0830 hours IST of yesterday to 0830 hours IST of today): at a few places over Andaman & Nicobar Islands and at isolated places over Jammu & Kashmir and Tamil Nadu, Puducherry & Karaikal.
- Severe Cold Day conditions at isolated pockets prevailed over northern parts of East Uttar Pradesh and cold day conditions at isolated pockets over Bihar and West Uttar Pradesh.
- Cold Wave conditions prevailed in isolated pockets over south West Madhya Pradesh, north Vidarbha, north Madhya Maharashtra and north Interior Odisha.
- Fog observed (at 0830 hours IST of today): Dense to Very Dense Fog in some parts over East Uttar Pradesh; in isolated pockets over east Bihar, West Uttar Pradesh, Punjab, Haryana and South west Rajasthan and Shallow to moderate fog in isolated pockets over Delhi, Uttarakhand, Saurashtra & Kutch and Coastal Coastal Andhra Pradesh & Yanam.
- Minimum Temperature Departures (as on 31-01-2022): Minimum temperatures are appreciably above normal (3.1°C to 5.0°C) at isolated places over Saurashtra & Kutch and Tamilnadu, Puducherry & Karaikal; above normal (1.6°C to 3.0°C) at a few places over West Rajasthan, Rayalaseema and Kerala & Mahe and at isolated places over Coastal Karnataka. They are appreciably below normal (- 3.1°C to - 5.0°C) at most places over Vidarbha; at many places over Odisha and Nagaland, Manipur, Mizoram & Tripura; at a few places over Telangana, Madhya Pradesh, Jharkhand, Gangetic West Bengal, Assam & Meghalaya and Andaman & Nicobar Islands and at isolated places over Madhya Maharashtra, Coastal Andhra Pradesh & Yanam and Sub-Himalayan West Bengal & Sikkim; below normal (-1.6°C to -

3.0°C) at many places over North Interior Karnataka, Chhattisgarh and Bihar; Gujarat Region and South Interior Karnataka and at isolated places over Himachal Pradesh, Uttar Pradesh and Konkan & Goa and near normal over rest parts of the country. Today, the Lowest minimum temperature of 3.6°C is reported at Hissar(Haryana) over the plains of the country.

- Maximum Temperature Departures (as on 30-01-2022): Maximum temperatures were appreciably above normal (3.1°C to 5.0°C) at a few places over Kerala & Mahe and at isolated places over Jammu-Kashmir, West Rajasthan and Coastal Karnataka. They were markedly below normal (-5.1 or less) at isolated places over East Uttar Pradesh and Sub-Himalayan West Bengal & Sikkim; appreciably below normal (-3.1°C to -5.0°C) at a few places over Bihar, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura and at isolated places over Gangetic West Bengal; below normal (-1.6°C to -3.0°C) at a few places over East Madhya Pradesh, Telangana, Chhattisgarh and Odisha and at isolated places over Saurashtra & Kutch and near normal over rest parts of the country. Yesterday, the Highest maximum temperature of 37.1°C was reported at Karwar (Coastal Karnataka) over the plains of the country.

Weather Warning during the next 5 days (IMD)

- 31 January (Day 1): Dense to very dense Fog in isolated pockets very likely over terai belt of Uttar Pradesh and dense fog in isolated pockets over Himachal Pradesh, Uttarakhand, Punjab, Haryana and Bihar. Cold day to severe cold day conditions in isolated pockets very likely over north Uttar Pradesh.
- 1 February (Day 2): Dense Fog in isolated pockets very likely over terai belt of Uttar Pradesh and Bihar. Thunderstorm accompanied with lightning at isolated places very likely over Arunachal Pradesh and Assam & Meghalaya.
- 2 February (Day 3): Thunderstorm accompanied with lightning and hail at isolated places very likely over Jammu Division and Himachal Pradesh. Dense Fog in isolated pockets very likely over Odisha. Strong Winds (speed reaching 40-50 kmph gusting to 60 kmph) very likely over Northeast Arabian Sea and along & off north Gujarat coast. Fisherman are advised not to venture in these area.
- 3 February (Day 4): Thunderstorm accompanied with lightning and hail at isolated places likely over Jammu Division, Himachal Pradesh, Uttarakhand, north Chhattisgarh and with lightning at isolated places over Punjab, Haryana, Uttar Pradesh, north Rajasthan, northeast Madhya Pradesh, Bihar, Jharkhand, West Bengal & Sikkim and Odisha.
- 4 February (Day 5): Heavy rainfall at isolated places likely over Bihar and West Bengal & Sikkim. Thunderstorm with lightning and hail at isolated places likely over Uttarakhand, Jharkhand, Odisha and with lightning at isolated places over

Uttar Pradesh, northeast Rajasthan, north Chhattisgarh, Bihar and West Bengal & Sikkim

- The weather outlook for seven days i.e., 31 Jan to 08 Feb 2022 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)

Punjab

Weather condition:

The maximum temperature during the week ranged between 12.6-15.2 °C and minimum temperature ranged between 5.8-11.2 °C. The morning and evening relative humidity during the week varied between 93-97 and 81-93%, respectively. The sunshine hours during the week ranged between 0.0-2.4 hrs/day. The evaporation rate ranged between 0.6-0.8 mm day⁻¹. Daily average wind speed varied from 2.5-14.7 kmhr⁻¹.

Contingency measure:

- Wheat: If yellowing of leaves appear due to manganese deficiency in wheat crop, spray the crop with manganese sulphate. If symptoms of sulphur deficiency noticed, broadcast one quintal gypsum/acre followed by a light irrigation or if the soil is in proper moisture condition, this may be mixed by hoeing. Regularly survey the wheat crop for the occurrence of yellow rust. If symptoms appeared then spray Custodia/Caviet/Opera/Tilt/Stilt/Bumper/Shine/Markzole @0.1 % or Nativo @ 0.06 % after weather clears up. For management of Pink stem borer, apply 7 kg of Mortel/Regent 0.3 G (fipronil) or 1 litres of Dursban 20 EC (chlorpyrifos) mixed with 20 kg of moist sand before first irrigation. Alternatively, foliar spray of Coragen 18.5 SC (chlorantraniliprole) @ 50 ml in 80-100 litre of water per acre may be applied. For management of Army worm, spray Coragen 18.5 SC (chlorantraniliprole) @ 40 ml/ac in 80-100 litres of water per acre in the evening. Alternatively, soil application of 7 kg of Mortel/Regent 0.3 G (fipronil) or 1 litre of Dursban 20 EC (chlorpyrifos) mixed with 20 kg of moist sand may be applied before the first irrigation.
- Oilseeds: When plants infestation by aphids in rapeseed and mustard crop reach 40-50%, spray Actara 25 WG (thiamethoxam) 40 g or Rogor 30 EC (dimethoate) 400 ml or Dursban/Coroban 20 EC (chlorpyrifos) 600 ml using 80-125 litres of water per acre.
- Vegetables: Mulching can be done to vegetable crops i.e cauliflower, spinach, fenugreek, coriander, radish, turnip, pea, tomato, brinjal, chilli and capsicum. It

also reduces heat loss from the surface. Regularly survey the potato crop during these days and rogue out virus affected potato plants from the seed crop. To protect potato crop from late blight, spray Indofil M-45/Mass M-45/Markzeb/Antracol/ Kavach @ 500- 700 g or Copper Oxychloride 50 WP/Mark copper @ 750- 1000 g/acre in 250- 350 litres of water after weather clears up. Sowing of cucumber can be done under low tunnel technology to get early yield.

- Fruits: Ensure that the younger evergreen fruit plants are protected from severe cold or frost. Thatches by using paddy straw, doob grass, date palm leave etc should be erected on these plants by keeping the sun side open. Powdery mildew in ber can be managed with spray of wettable sulphur @ 2.5 g per litre of water and black spot disease in ber can be managed with spray of Bordeaux mixture (2:2:250) during this month. The planting of peach and plum must be finished as soon as possible and planting of pear, grapes, fig etc. can be initiated. Application of well rotten farm yard manure or other organic manures can be done for all major fruit plants except guava and ber. Its ideal time for pruning in citrus orchards after harvesting of fruits. The plants of pear, grapes and fig can also be pruned.
- Animal Husbandary: In order to protect animals from occurrence of bloat, berseem should be mixed with wheat straw before it is fed to animals. Balanced ration is a must for animals as it supplies balanced nutrients for 24 hours required by the animal. Green fodder should be given 40-50 Kg per animal per day. This will reduce the cost incurred by the dairy farmer on feed as feed alone accounts for 65-70 % of the cost required for dairy farm. If any change is to be made in daily ration, it should be done slowly in 9-10 days so that animals get accustomed to it.

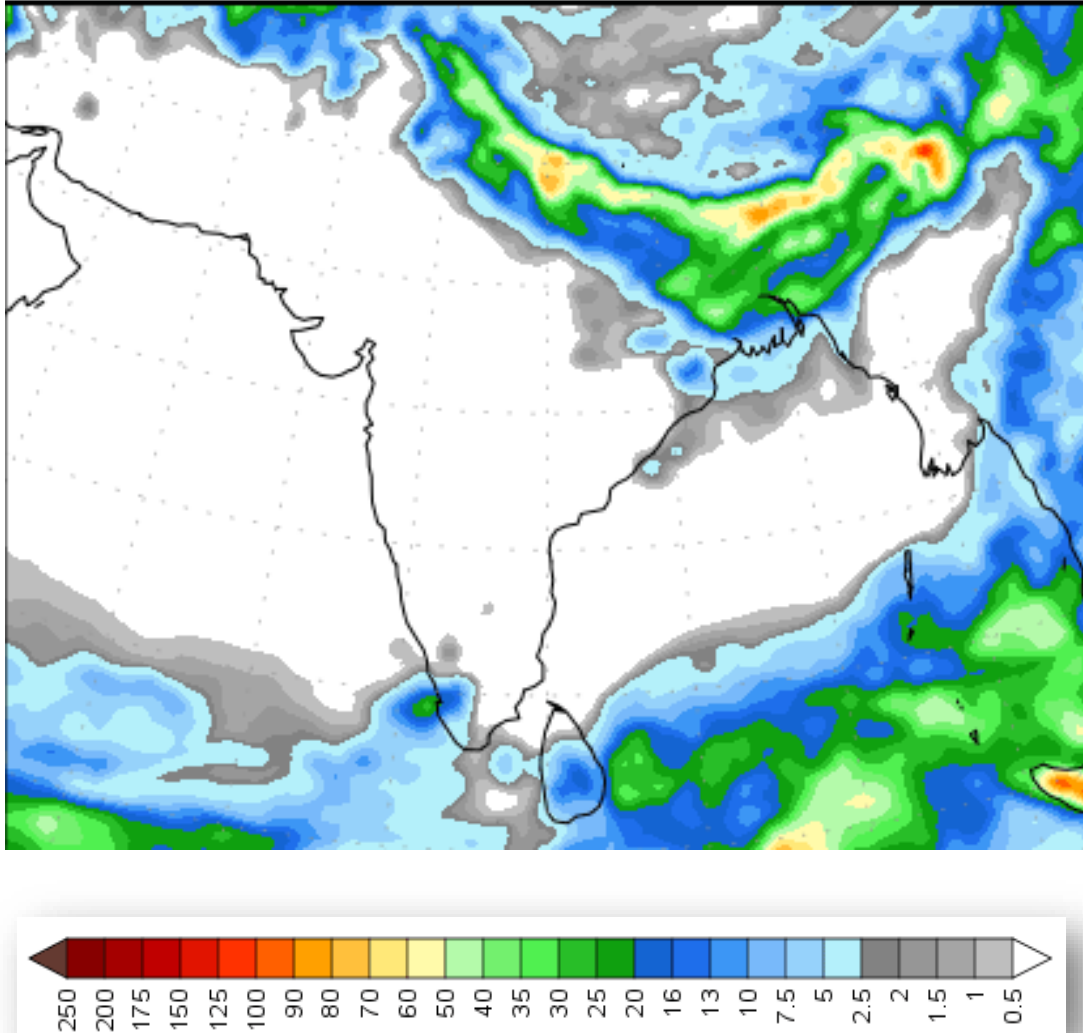


Figure:2. Precipitation forecast for 31 Jan to 08 Feb 2022 (Source: NOAA NCEP).

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.