

All India Coordinated Research Project on Agrometeorology

CRIDA, Santoshnagar, Hyderabad – 500 059

Daily Crop Weather Information as on 21 December 2020

Attention: Rajiv Maheshwari, OSD, ICAR

Significant Weather Features (IMD)

- Gradual rise in minimum and maximum temperatures by 1-2°C very likely over plains of Northwest & adjoining Central India during next 24 hours and no significant change during subsequent 2 days. No large change in minimum temperatures over West India during next 48 hours and then gradual rise by 2-3°C during subsequent 3 days over the region. Fall in minimum temperatures by 2-3°C over Northeast India during next 3 days.
- No Cold Day conditions likely over Northwest & adjoining Central India during next 2-3 days except over Uttar Pradesh. Only isolated Cold Wave conditions are likely over Punjab, Haryana, Chandigarh & Delhi and East Rajasthan during next 24 hours. Dense to very dense fog likely in isolated pockets over Punjab, Haryana, Chandigarh & Delhi during 23rd-25th December.
- The current spell of Cold Wave/Cold Day conditions likely to continue at a few places over East Uttar Pradesh on 21st & 22nd December and with lesser severity on 23rd December.
- Dense to very dense fog likely in some to many pockets over north Uttar Pradesh and north Bihar on 21st & 22nd December and dense fog on 23rd December.
- Current spell of Cold Wave/Severe Cold Wave conditions likely to continue over Bihar, Gangetic West Bengal and interior Odisha during next 2 days and with lesser severity on the 3rd day.
- 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 isolated places over Andaman & Nicobar Islands.
- Fog observed (at 0530 and 0830 hours IST of today): Dense to very dense fog at many places over East Uttar Pradesh and at isolated places over West Uttar Pradesh and Bihar and Dense fog at isolated places over Punjab.
- Today, Cold Wave conditions are observed at isolated places over East Rajasthan, East Uttar Pradesh, Bihar, Chhattisgarh, Gangetic West Bengal and Odisha.

- Yesterday, Severe Cold Day conditions observed at a few places over north Uttar Pradesh and Cold Day conditions at isolated places over Bihar.
- Maximum Temperature Departures as on 20-12-2020: Maximum temperatures were above normal (1.6°C to 3.0°C) at a few places over Himachal Pradesh; at isolated places over Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe. They were markedly below normal (-5.1°C or less) at many places over East Uttar Pradesh; at isolated places over West Uttar Pradesh; appreciably below normal (-3.1°C to -5.0°C) at many places over Bihar; at a few places over West Bengal & Sikkim; at isolated places over Madhya Pradesh and Odisha; below normal (-1.6°C to -3.0°C) at many places over Haryana, Chandigarh & Delhi, Gujarat region and Jharkhand; at a few places over Madhya Maharashtra and North Interior Karnataka; at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad and Saurashtra & Kutch and near normal over rest parts of the country. Yesterday, the highest maximum temperature of 35.2°C reported at Mangalore (Coastal Karnataka) over the country.
- Minimum Temperature Departures as on 21-12-2020: Minimum temperatures are above normal (1.6°C to 3.0°C) at a few place over Andaman & Nicobar Islands, Arunachal Pradesh, Coastal Karnataka and Lakshadweep. They are markedly below normal (-5.1°C or less) at isolated places over Odisha, Chhattisgarh and Marathwada; appreciably below normal (-3.1°C to -5.0°C) at most places over East Uttar Pradesh; at many places over Vidarbha and Gangetic West Bengal; at a few places over East Madhya Pradesh and Saurashtra & Kutch; at isolated places over Rajasthan, West Madhya Pradesh, Bihar, Telangana, Jharkhand, Uttarakhand and Punjab; below normal (-1.6°C to -3.0°C) at many places over Haryana, Chandigarh & Delhi, West Uttar Pradesh, Coastal Andhra Pradesh & Yanam and Madhya Maharashtra; at a few places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Sub-Himalayan West Bengal & Sikkim, Saurashtra & Kutch and Tamil Nadu, Puducherry & Karaikal; at isolated places over Gujarat region and near normal over rest parts of the country. Today, the lowest minimum temperature of 3.3°C is reported at Ambala (Haryana) over the plains of the country

Weather Warning during the next 5 days (IMD)

- 21 December (Day 1): Cold Wave to Severe Cold Wave conditions very likely at isolated places over East Uttar Pradesh and Odisha and Cold Wave conditions at isolated places over Kutch region, East Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Punjab, Haryana, Chandigarh & Delhi, West Uttar Pradesh, East Rajasthan and Gangetic West Bengal. Cold Day to Severe Cold Day conditions very likely at

a few places over East Uttar Pradesh and Cold Day conditions at isolated places over Bihar and West Uttar Pradesh. Dense to very dense fog very likely in some pockets over East Uttar Pradesh and in isolated pockets over Bihar and West Uttar Pradesh and dense fog in isolated pockets over Assam & Meghalaya and Punjab. Ground Frost very likely at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad, Himachal Pradesh and Uttarakhand. Squally wind (speed reaching 45-55 kmph gusting to 65 kmph) very likely over Comorin area, Gulf of Mannar and Tamil Nadu coast. Fishermen are advised not to venture into this area.

- 22 December (Day 2): Cold Wave to Severe Cold Wave conditions very likely at isolated places over East Uttar Pradesh and Odisha and Cold Wave conditions at isolated places over Kutch region, Telangana, East Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, West Uttar Pradesh and Gangetic West Bengal. Cold Day to Severe Cold Day conditions very likely at a few places over East Uttar Pradesh and at isolated places over West Uttar Pradesh and Cold Day conditions at isolated places over Bihar. Dense to very dense fog very likely in some pockets over East Uttar Pradesh and in isolated pockets over Bihar and dense fog in isolated pockets over Assam & Meghalaya, Punjab and West Uttar Pradesh. Ground Frost very likely at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad, Himachal Pradesh and Uttarakhand. Heavy rainfall very likely at isolated places over Tamil Nadu, Puducherry & Karaikal. Thunderstorm accompanied with lightning very likely at isolated places over Lakshadweep. Squally wind (speed reaching 45-55 kmph gusting to 65 kmph) very likely over Comorin area, Gulf of Mannar, Lakshadweep and Maldives ares. Fishermen are advised not to venture into this area.
- 23 December (Day 3): Cold Wave conditions at isolated places over Odisha and East Uttar Pradesh. Cold Day to Severe Cold Day conditions very likely at isolated places over West Uttar Pradesh and Cold Day conditions at isolated places over East Uttar Pradesh and Bihar. Dense to very dense fog very likely in isolated pockets over Punjab and Haryana, Chandigarh & Delhi and dense fog in isolated pockets over Bihar, Assam & Meghalaya and Uttar Pradesh. Heavy rainfall very likely at isolated places over Tamil Nadu, Puducherry & Karaikal. Thunderstorm accompanied with lightning very likely at isolated places over Lakshadweep.
- 24 December (Day 4): Dense to very dense fog very likely in isolated pockets over Punjab and Haryana, Chandigarh & Delhi and dense fog in isolated pockets over

Uttar Pradesh. Thunderstorm accompanied with lightning very likely at isolated places over Lakshadweep.

- 25 December (Day 5): Dense to very dense fog very likely in isolated pockets over Punjab and Haryana, Chandigarh & Delhi and dense fog in isolated pockets over Uttar Pradesh.
- The weather outlook for seven days i.e., 21 December to 29 December 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)

Gujarat

Weather condition:

The actual maximum temperature was 2.3°C lower and Actual minimum temperature was 5.5°C higher as compared to its normal. Total BSS was 33.3 hrs. with an average of 4.8 hrs. The daily average evaporation and wind speed was 2.0 mm and 2.3 km/hr respectively. The daily average RH during morning and afternoon was 94.1 % and 62.4 % respectively.

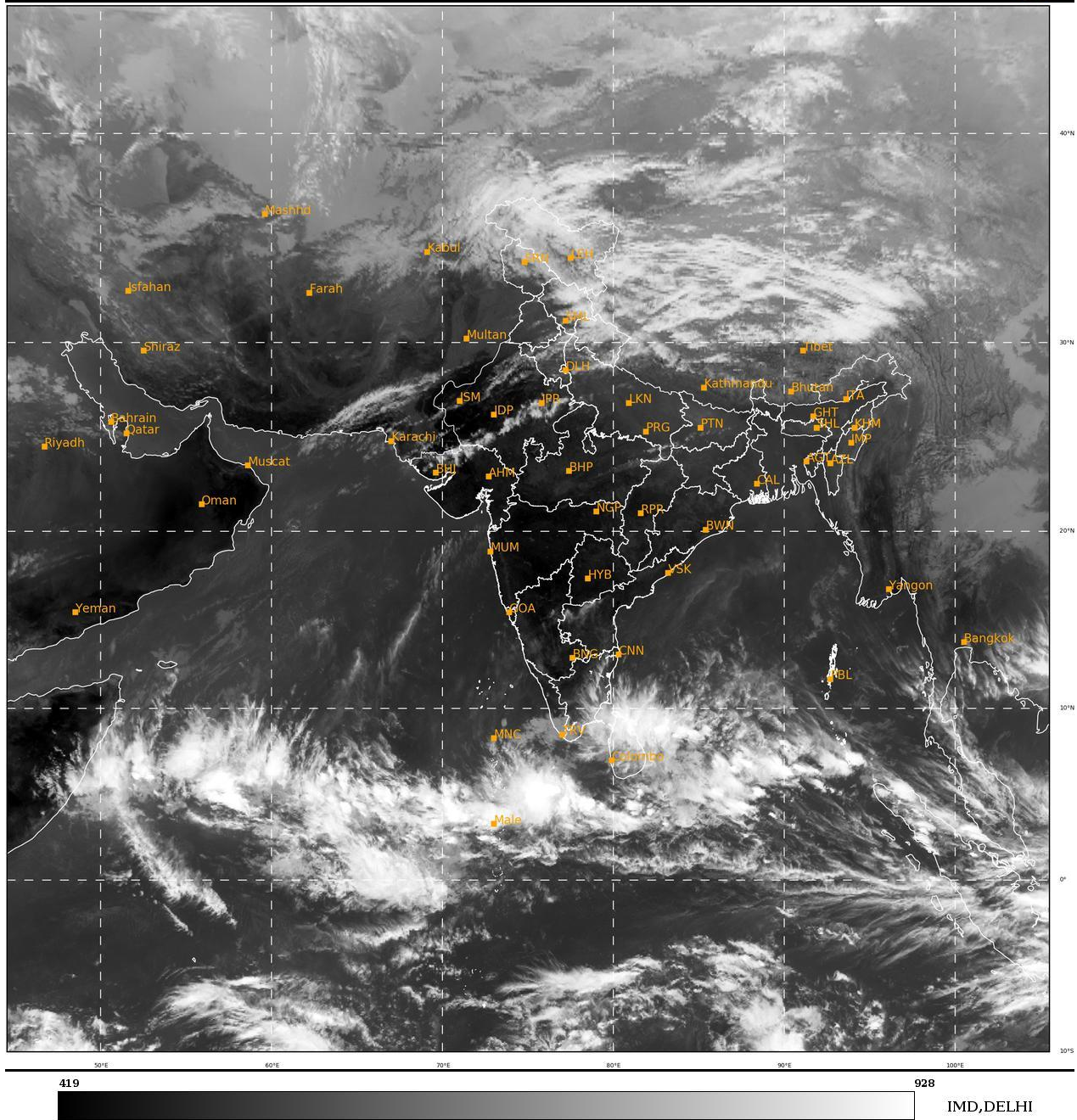
Contingency measure:

- Wheat : Emergence/early vegetative : Apply irrigation at CRI stage. If require, gap filling should be done. Apply recommended dose of top dressing of nitrogenous fertilizer. Carried out weeding and interculturing operations.
- Mustard : Reproductive : 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.
- Cotton: Harvesting: Pick the cotton during morning hours before evaporation of dew for better quality.
- Tobacco : inter-culturing and weeding is advised. Carried out topping operation at flowering initiation stage.
- 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⁻¹ 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 Carbendenzim (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.

21-12-2020/(0830 to 0857) GMT
21-12-2020/(1400 to 1427) IST



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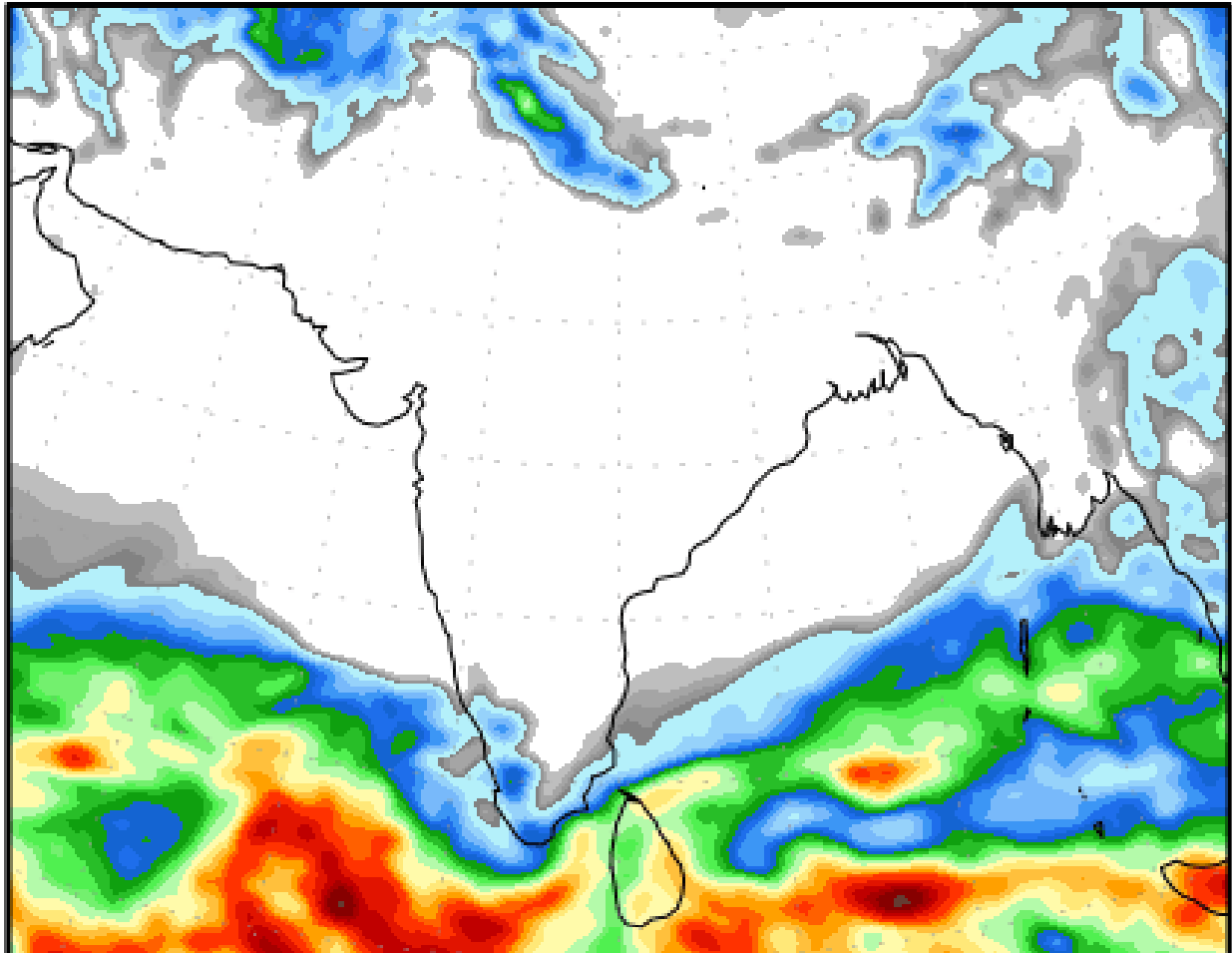


Figure:2. Precipitation forecast for 21 to 29 December 2020 (Source: NOAA NCEP).

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