

All India Coordinated Research Project on Agrometeorology

CRIDA, Santoshnagar, Hyderabad – 500 059

Daily Crop Weather Information as on 16 December 2021

Attention: Rajiv Maheshwari, OSD, ICAR

Significant Weather Features (IMD)

- Fall in minimum temperatures by 2-4° over most parts of Northwest & adjoining Central India and Gujarat State during next 4-5 days and by 2-3° over most parts of East India and Maharashtra during next 4 days.
- Cold Wave/Severe Cold Wave conditions over Punjab, Haryana, Chandigarh and Saurashtra & Kutch during 17th to 21th; over north Rajasthan during 18th to 21th; over West Uttar Pradesh during 19th to 21st and over Gujarat region on 19th & 20th December, 2021.
- Dense/Very dense fog in the morning hours at isolated pockets over Punjab and Haryana on 17th & 18th; over northwest Rajasthan, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura on 17th December, 2021.
- Ground frost conditions in the morning hours in isolated pockets very likely over Saurashtra & Kutch, Punjab and Haryana during next 4 days.
- The Western Disturbance as a cyclonic circulation lies over north Pakistan & neighbourhood between 3.1 & 7.8 km above mean sea level. Under their influence: (i) Light to moderate rainfall/snowfall at isolated places very likely over Jammu, Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand during next 2 days and isolated light rainfall over northern parts of Punjab, Haryana on 16th December.
- Light to moderate rainfall at isolated places very likely over Tamil Nadu-Puducherry-Karaikal and Kerala-Mahe during next 5 days; over Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura on 20th December.
- Dry weather very likely over remaining parts of the country during next 5 days.
- A cyclonic circulation lies over Equatorial Indian Ocean to the south of Sri Lanka and extends upto 5.8 km above mean sea level. Under its influence, a Low Pressure Area is likely to form over Equatorial Indian Ocean & adjoining Southwest Bay of Bengal around 17th December. Under its influence:

(i) Squally weather (wind speed 40-50 kmph gusting to 60 kmph) very likely over Equatorial Indian Ocean & adjoining Southwest Bay of Bengal during 17th to 19th. Fishermen are advised not to venture into these areas.

(ii) Light to moderate rainfall at a few/many places over Andaman & Nicobar Islands during 17th-20th December and Heavy rainfall over Nicobar Islands on 20th December, 2021.

- The images showing the latest satellite picture in the figure. 1.

Main Weather Observations (IMD)

- Rainfall/Thundershowers observed (from 0830 hours IST of yesterday to 0830 hours IST of today): at a few places over Kerala and at isolated places over Coastal Karnataka and Tamilnadu & Karaikal.
- Fog observed (at 0830 hrs IST of today): Dense to very dense fog in isolated pockets over Punjab and Haryana; Moderate fog in isolated pockets over Assam; Shallow fog in isolated pockets over Delhi, East Uttar Pradesh, East Rajasthan and West Madhya Pradesh.
- Minimum Temperature Departures (as on 16-12-2021): Minimum temperatures are markedly above normal (5.1°C or more) at a few place over Madhya Maharashtra and West Madhya Pradesh; appreciably above normal (3.1°C to 5.0°C) at a few places over East Madhya Pradesh and Vidarbha; above normal (1.6°C to 3.0°C) at many places over Marathwada, Coastal Karnataka and Tamil Nadu, Puducherry & Karaikal; at a few places over East Rajasthan, Kerala & Mahe, Konkan & Goa and Lakshadweep. They are markedly below normal (5.1°C or less) at isolated places over Saurashtra & Kutch; appreciably below normal (-3.1°C to -5.0°C) at many places over Jammu & Kashmir, Ladakh, Gilgit, Baltistan, Muzaffarabad and Himachal Pradesh and at isolated place over Punjab, Haryana and West Rajasthan; below normal (-1.6°C to -3.0°C) at most place over Uttarakhand; at many places over Odisha and Bihar; at a few places over Andaman & Nicobar Islands, Gangetic West Bengal and Telangana and near normal over rest parts of the country. Today, the Lowest minimum temperature of 3.8°C is reported at Naliya (Saurashtra & Kutch) over the plains of the country.
- Maximum Temperature Departures (as on 15-12-2021): Maximum temperatures were above normal (1.6°C to 3.0°C) at many places over Assam & Meghalaya; at a few places over Kerala & Mahe and at isolated places over West Madhya Pradesh. They were appreciably below normal (-3.1°C to -5.0°C) at isolated places over West Rajasthan, East Uttar Pradesh, East Madhya Pradesh and Madhya Maharashtra; below normal (-1.6°C to -3.0°C) at many places over East Rajasthan,

Jharkhand and Gangetic West Bengal; at a few places over Haryana, Chandigarh & Delhi, Gujarat State, Konkan & Goa, Telangana, South Interior Karnataka, Bihar and Odisha and at isolated places over Himachal Pradesh, Punjab, Vidarbha, Coastal Andhra Pradesh & Yanam, Sub-Himalayan West Bengal & Sikkim and Andaman & Nicobar Islands and near normal at rest parts of the country. Yesterday, the highest maximum temperature of 35.3°C was reported at Kozhikode (Kerala & Mahe).

Weather Warning during the next 5 days (IMD)

- 16 December (Day 1): Dense to very dense fog in the morning hours in isolated pockets very likely over Punjab and dense fog in isolated pockets over Haryana, Chandigarh, north Rajasthan, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura. Cold Wave to severe cold wave conditions in isolated pockets very likely over Saurashtra & Kutch and cold wave conditions in isolated pockets over Punjab, Haryana and Chandigarh. Ground frost conditions in the morning hours in isolated pockets very likely over Saurashtra & Kutch, Punjab and Haryana.
- 17 December (Day 2): Dense fog in the morning hours in isolated pockets very likely over Punjab, Haryana and Chandigarh. Cold Wave to severe cold wave conditions in isolated pockets very likely over Saurashtra & Kutch and cold wave conditions in isolated pockets over Punjab, Haryana, Chandigarh and north Rajasthan. Ground frost conditions in the morning hours in isolated pockets very likely over Saurashtra & Kutch, Punjab and Haryana. Squally weather (wind speed 40-50 kmph gusting to 60 kmph) very likely over Equatorial Indian Ocean & adjoining Southwest Bay of Bengal. Fishermen are advised not to venture into these areas.
- 18 December (Day 3): Cold Wave to severe cold wave conditions in isolated pockets very likely over Saurashtra & Kutch, Punjab, Haryana, Chandigarh and north Rajasthan and cold wave conditions in isolated pockets over West Uttar Pradesh and Gujarat Region. Ground frost conditions in the morning hours in isolated pockets very likely over Saurashtra & Kutch, Punjab and Haryana. Squally weather (wind speed 40-50 kmph gusting to 60 kmph) very likely over Equatorial Indian Ocean & adjoining Southwest Bay of Bengal. Fishermen are advised not to venture into these areas.
- 19 December (Day 4): Cold Wave to severe cold wave conditions in isolated pockets likely over Saurashtra & Kutch, Punjab, Haryana, Chandigarh and Rajasthan and cold wave conditions in isolated pockets over West Uttar Pradesh and Gujarat Region. Ground frost conditions in the morning hours in isolated

pockets likely over Saurashtra & Kutch, Punjab and Haryana. Squally weather (wind speed 40-50 kmph gusting to 60 kmph) likely over Equatorial Indian Ocean & adjoining Southwest Bay of Bengal. Fishermen are advised not to venture into these areas.

- 20 December (Day 5): Cold Wave conditions in isolated pockets likely over Punjab, Haryana, Chandigarh, West Uttar Pradesh, north Rajasthan and Saurashtra & Kutch.
- The weather outlook for seven days i.e., 16 Dec to 24 Dec 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 4.7 °C lower and actual minimum temperature was 3.8 °C higher as compare to its normals. Total BSS was 31.0 hrs. with an average of 4.4 hrs. The daily average evaporation and wind speed was 1.8 mm and 4.5 km/hr respectively. The daily average RH during morning and afternoon was 86.0 % and 62.0 % respectively.

Contingency measure:

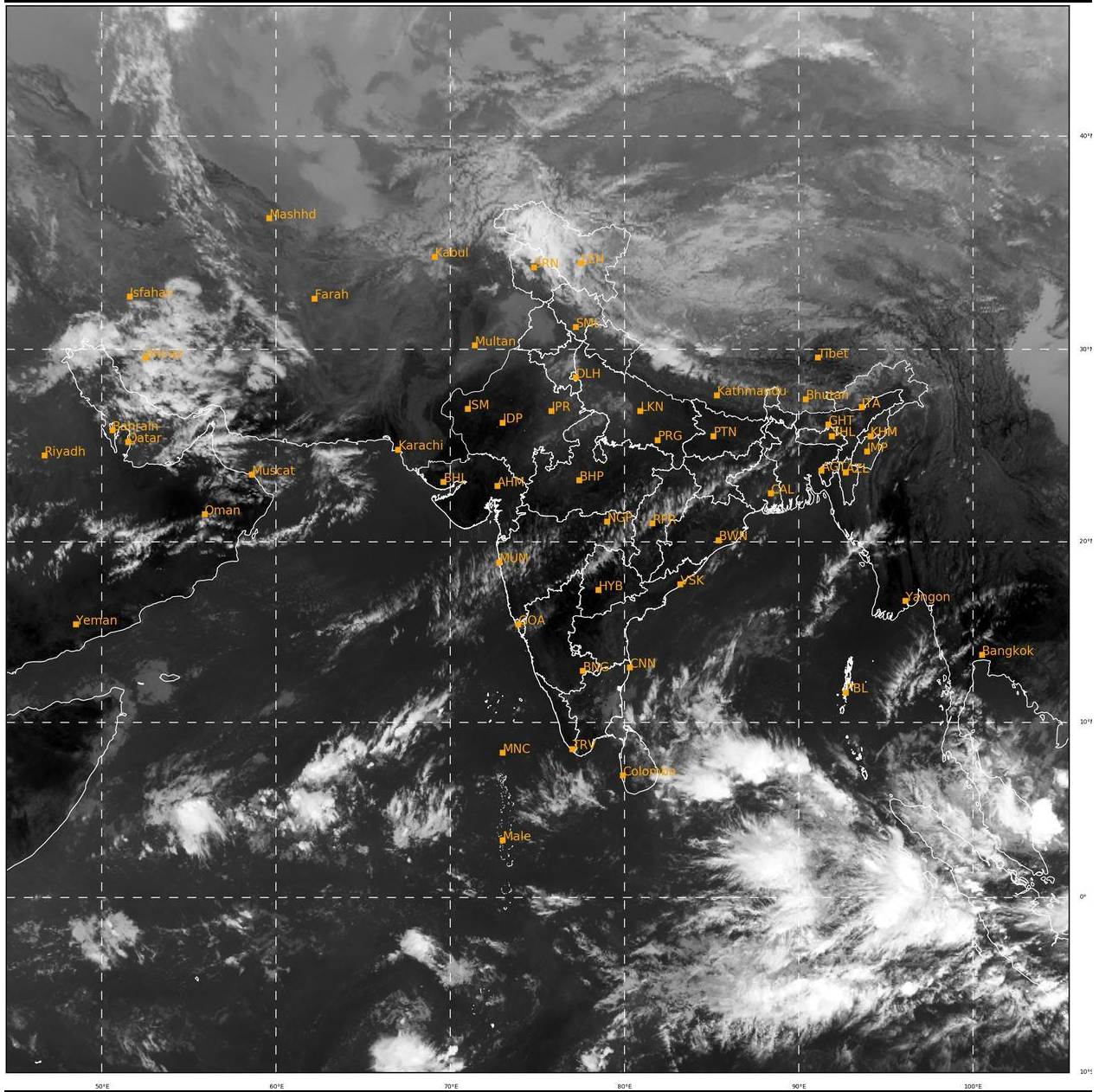
- Wheat: Emergence/early vegetative : Apply irrigation at CRI stage. If require, gap filling should be done. Apply recommended dose of top dressing of nitrogenous fertilizer. Carried out weeding and interculturing operations.
- Mustard: Reproductive : For control of powdery mildew of mustard, spray sulfur 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. Inter culturing and weeding is advised in late sown mustard.
- Tobacco (Rustica) : Gap filling, inter-culturing and hand weeding in established transplanted crop is advised.
- Cotton: Harvesting: Pick the cotton during morning hours before evaporation of dew for better quality.
- Chilli: For control of thrips, spray Profenofos 20 ml or neem seed oil 50 ml in 10 liter water. In case of severe attack, spray Spinosad or Spinetoram 3 ml per 10 liter of water.
- Tomato: 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.

- Castor: boll development: Semi looper : Apply supplementary dose of nitrogen @ 40 kg/ha in form of urea. Spray Quinalphos 20 ml in 10 liters of water at 15 days interval.
- Vegetable Crop: Growth: Due to variable weather farmers are advised to constant monitoring against attack of pest and disease in vegetable crop, if symptom observed, take protection measures as per recommendation when sky remain clear.
- 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

16-12-2021/(0630 to 0656) GMT
16-12-2021/(1200 to 1226) IST



443

940

IMD, DELHI

Figure: 1. Latest available satellite picture as on 16 Dec 2021 at 1226 Hrs (IST). (Source: IMD).

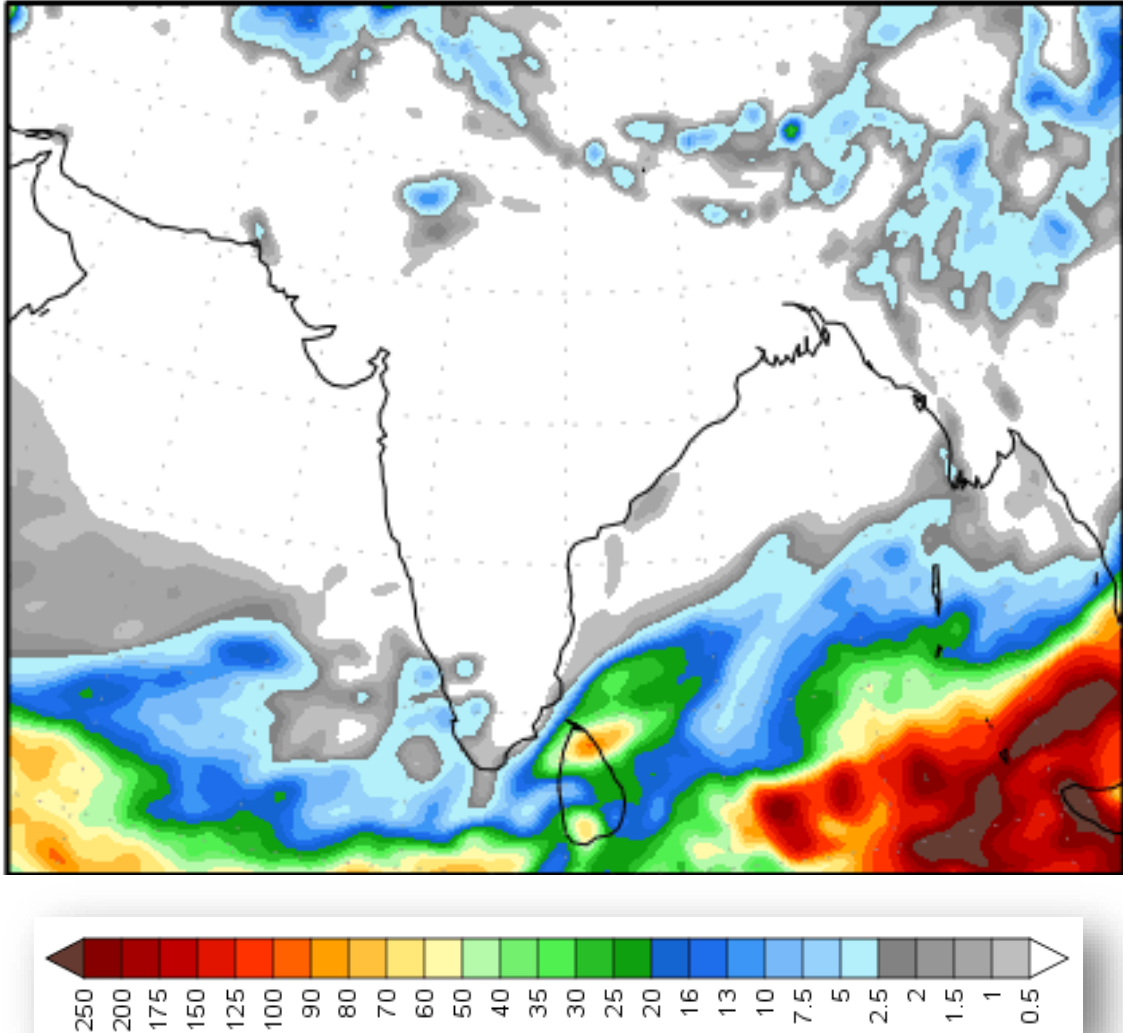


Figure:2. Precipitation forecast for 16 Dec to 24 Dec 2021 (Source: NOAA NCEP).

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