

All India Coordinated Research Project on Agrometeorology

CRIDA, Santoshnagar, Hyderabad – 500 059

Daily Crop Weather Information as on 29 December 2020

Attention: Rajiv Maheshwari, OSD, ICAR

Significant Weather Features (IMD)

- Under the influence of the strengthening of cold & dry northwesterly/northerly lower level winds:
 - i) Fall in minimum temperatures by about 2°C over most parts of Northwest and Central India during next 3 days (29th-31st December) and rise by 3-5°C thereafter for subsequent 3 days.
 - ii) Cold Wave to Severe Cold Wave conditions in isolated to many pockets very likely over Uttarakhand, Punjab, Haryana, Chandigarh & Delhi , Uttar Pradesh, Rajasthan and Saurashtra & Kutch during next 3-4 days and abatement of Cold Wave conditions from these regions thereafter.
 - iii) Cold Wave conditions very likely over Bihar, Gangetic West Bengal, Odisha during 30th December, 2020- 01st January, 2021 and over Himachal Pradesh and Madhya Pradesh during 29th-30th December .
- Dense to very dense fog in some pockets very likely over Punjab, Haryana, Chandigarh & Delhi and Uttarakhand during next 3-4 days and dense fog in isolated pockets very likely over Uttar Pradesh during next 3 days and over Rajasthan during next 2 days.
- Ground Frost conditions very likely over north Rajasthan, Himachal Pradesh, Uttarakhand, Punjab and Haryana, Chandigarh & Delhi during next 2 days
- The images showing the latest satellite picture in the figure. 1.

Main Weather Observations (IMD)

- Rain/Thundershowers observed (from 0830 hours IST yesterday to 0830 hours IST of today): at isolated places over Andaman & Nicobar Islands and Tamil Nadu, Puducherry & Karaikal.
- Fog observed (from 0530- 0830 hours IST of today): Dense to very dense fog in many pockets over Punjab and in isolated pockets over northwest Rajasthan and Chandigarh and Dense fog in isolated pockets over Himachal Pradesh, East Uttar Pradesh, South Interior Karnataka and Tamil Nadu.

- Today, Cold Wave to Severe Cold Wave conditions (at 0830 hrs IST of yesterday) observed in many pockets over Punjab; in isolated pockets over Himachal Pradesh, Haryana, north Rajasthan, West Madhya Pradesh and Saurashtra & Kutch and Cold Wave conditions in isolated pockets over Haryana, Chandigarh & Delhi, East Rajasthan, Uttarakhand, Jammu division.
- Yesterday, Cold Day to Severe Cold Day conditions (at 1730 hrs IST of yesterday) were observed in a few pockets over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad and Cold Day Conditions in a few pockets over Punjab and West Madhya Pradesh and in isolated pockets over Himachal Pradesh, Haryana, Chandigarh & Delhi and Saurashtra & Kutch.
- Maximum Temperature Departures as on 28-12-2020: Maximum temperatures were appreciably above normal (3.1°C to 5.0°C) at a few places over Chhattisgarh and at isolated places over Madhya Maharashtra; above normal (1.6°C to 3.0°C) at most places over Marathwada and Jharkhand; at many places over Vidarbha, Karnataka and Arunachal Pradesh; at a few places over East Madhya Pradesh, Telangana, Kerala & Mahe, Odisha and Assam & Meghalaya and at isolated places over Tamil Nadu, Puducherry & Karaikal and SubHimalayan West Bengal & Sikkim. They were markedly below normal (-5.1°C or less) at a few places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad; appreciably below normal (-3.1°C to -5.0°C) at a few places over Saurashtra & Kutch and Gangetic West Bengal and below normal (-1.6°C to -3.0°C) at most places over Himachal Pradesh, Punjab, Haryana, Chandigarh & Delhi and East Rajasthan; at many places over Konkan & Goa and West Madhya Pradesh; at a few places over West Rajasthan and Andaman & Nicobar Islands and near normal over rest parts of the country. Yesterday, the highest maximum temperature of 35.3°C was reported at Mangalore (Coastal Karnataka) over the country.
- Minimum Temperature Departures as on 29-12-2020: Minimum temperatures are above normal (1.6°C to 3.0°C) at many places over Madhya Maharashtra, Vidarbha and Tamil Nadu, Puducherry & Karaikal; at a few places over Marathawada and Coastal Karnataka. They are below normal (-1.6°C to -3.0°C) at most places over Rajasthan, Gujarat state, West Madhya Pradesh, Punjab, Haryana, Chandigarh & Delhi. West Uttar Pradesh and Himachal Pradesh; at many places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Uttarakhand, Bihar, Gangetic West Bengal and Konkan & Goa; at isolated places over Assam & Meghalaya, East Uttar Pradesh and East Madhya Pradesh and near normal over rest parts of the country. Today, the lowest minimum temperature of -0.4°C reported at Churu (West Rajasthan) over the plains of the country.

Weather Warning during the next 5 days (IMD)

- 29 December (Day 1): Cold Wave to Severe Cold Wave conditions very likely in most pockets over Punjab and Haryana, Chandigarh & Delhi; in some pockets over East Rajasthan and Uttarakhand; in isolated pockets over West Rajasthan and Saurashtra & Kutch. Cold Wave conditions in isolated pockets over Himachal Pradesh, West Uttar Pradesh and north Madhya Pradesh. Cold Day conditions very likely in isolated pockets over Punjab, Haryana, Chandigarh & Delhi and West Madhya Pradesh. Dense to Very Dense Fog very likely in many pockets over Punjab and Haryana, Chandigarh & Delhi. Dense fog in isolated pockets over Uttar Pradesh and Rajasthan. Ground Frost very likely at isolated places over Himachal Pradesh, Uttarakhand, north Rajasthan, Punjab and Haryana, Chandigarh & Delhi. Thunderstorm accompanied with lightning very likely at isolated places over Tamil Nadu, Puducherry & Karaikal.
- 30 December (Day 2): Cold Wave to Severe Cold Wave conditions very likely in most pockets over Punjab and Haryana, Chandigarh & Delhi; in some pockets over East Rajasthan and Uttarakhand; in isolated pockets over West Rajasthan and Saurashtra & Kutch. Cold Wave conditions in isolated pockets over Himachal Pradesh, Uttar Pradesh, north Madhya Pradesh, Bihar, Gangetic West Bengal and Odisha. Cold Day conditions very likely in isolated pockets over Punjab, Haryana, Chandigarh & Delhi and West Madhya Pradesh. Dense to Very Dense Fog very likely in some pockets over Punjab and Haryana, Chandigarh & Delhi. Dense fog in isolated pockets over Uttarakhand, Uttar Pradesh and West Rajasthan. Ground Frost very likely at isolated places over Himachal Pradesh, Uttarakhand, north Rajasthan, Punjab and Haryana, Chandigarh & Delhi. Thunderstorm accompanied with lightning very likely at isolated places over Tamil Nadu, Puducherry & Karaikal.
- 31 December (Day 3): Cold Wave to Severe Cold Wave conditions very likely in isolated pockets over West Uttar Pradesh. Cold Wave conditions in isolated pockets over Punjab, Haryana, Chandigarh & Delhi, East Uttar Pradesh, Rajasthan, Uttarakhand, Bihar, Gangetic West Bengal and Odisha. Dense to Very Dense Fog very likely in some pockets over Punjab and Haryana, Chandigarh & Delhi. Dense fog in isolated pockets over Uttarakhand and Uttar Pradesh. Thunderstorm accompanied with lightning very likely at isolated places over South Interior Karnataka, Kerala & Mahe, Lakshadweep and Tamil Nadu, Puducherry & Karaikal.
- 01 January (Day 4): Cold Wave to Severe Cold Wave conditions likely in isolated pockets over West Uttar Pradesh. Cold Wave conditions in isolated pockets over

East Uttar Pradesh, Bihar, Gangetic West Bengal and Odisha. Dense to Very Dense Fog likely in isolated pockets over Punjab and Haryana, Chandigarh & Delhi. Dense fog in isolated pockets over Uttarakhand.

- 02 January (Day 5): Thunderstorm accompanied with lightning likely at isolated places over West Madhya Pradesh and Tamil Nadu, Puducherry & Karaikal.
- The weather outlook for seven days i.e., 29 December to 06 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 2.5°C lower and Actual minimum temperature was 0.5°C higher as compared to its normal. Total BSS was 61.7 hrs. with an average of 8.8 hrs. The daily average evaporation and wind speed was 2.7 mm and 3.7 km/hr respectively. The daily average RH during morning and afternoon was 82.0 % and 44.3 % respectively.

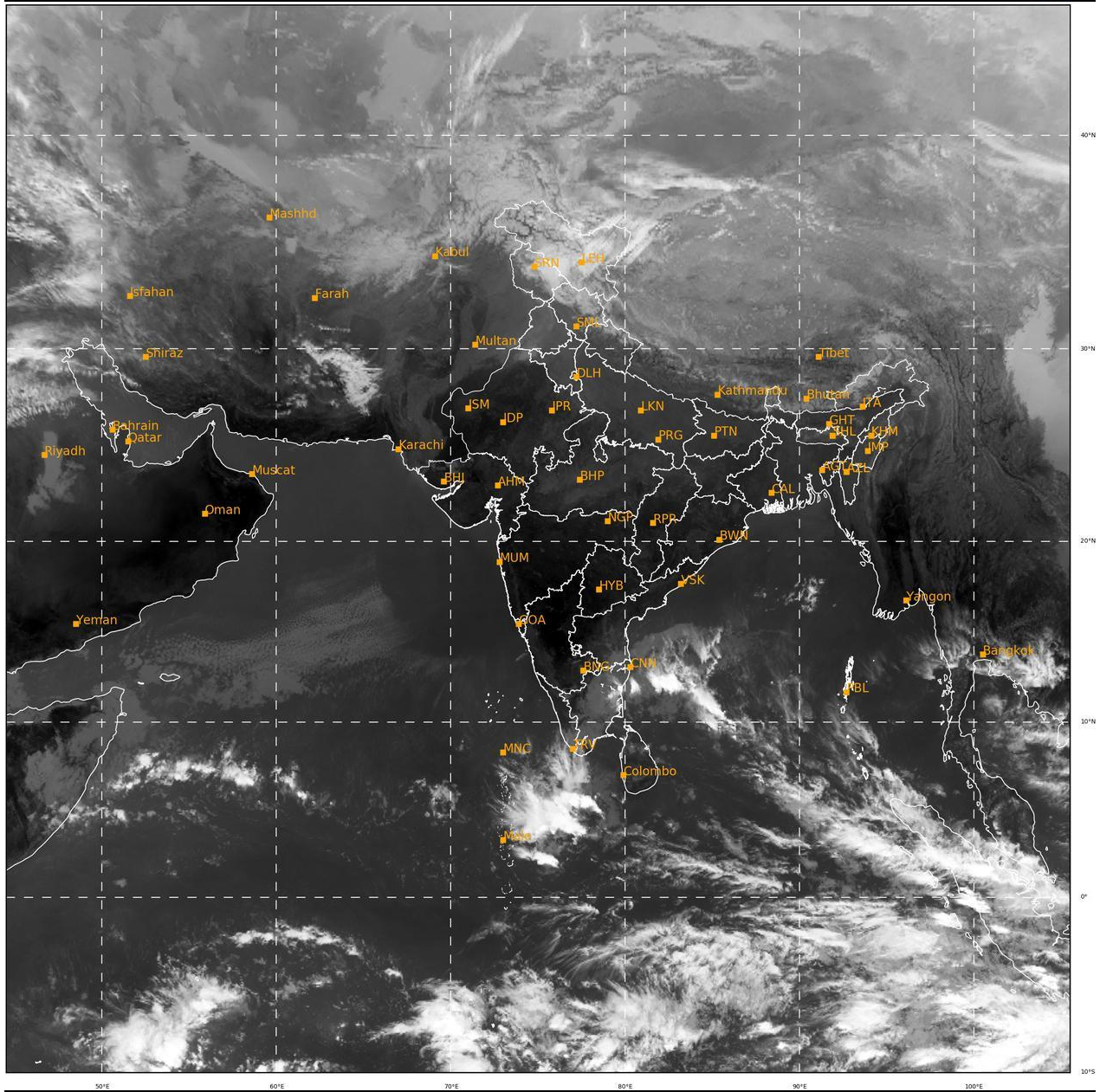
Contingency measure:

- Wheat : Vegetative : Apply irrigation at CRI stage. If require, gap filling should be done. Apply recommended dose of top dressing of nitrogenous fertilizer. Carried out interculturing and weeding 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.
- Tobacco : inter-culturing and weeding is advised. Carried out topping operation at flowering initiation stage. De-suckuring 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⁻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 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
LIC Mercator

29-12-2020/(0800 to 0827) GMT
29-12-2020/(1330 to 1357) IST



436

928

IMD, DELHI

Figure: 1. Latest available satellite picture as on 29 December 2020 at 1357 Hrs (IST).
(Source: IMD).

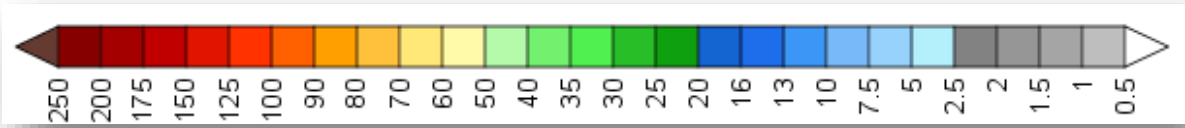
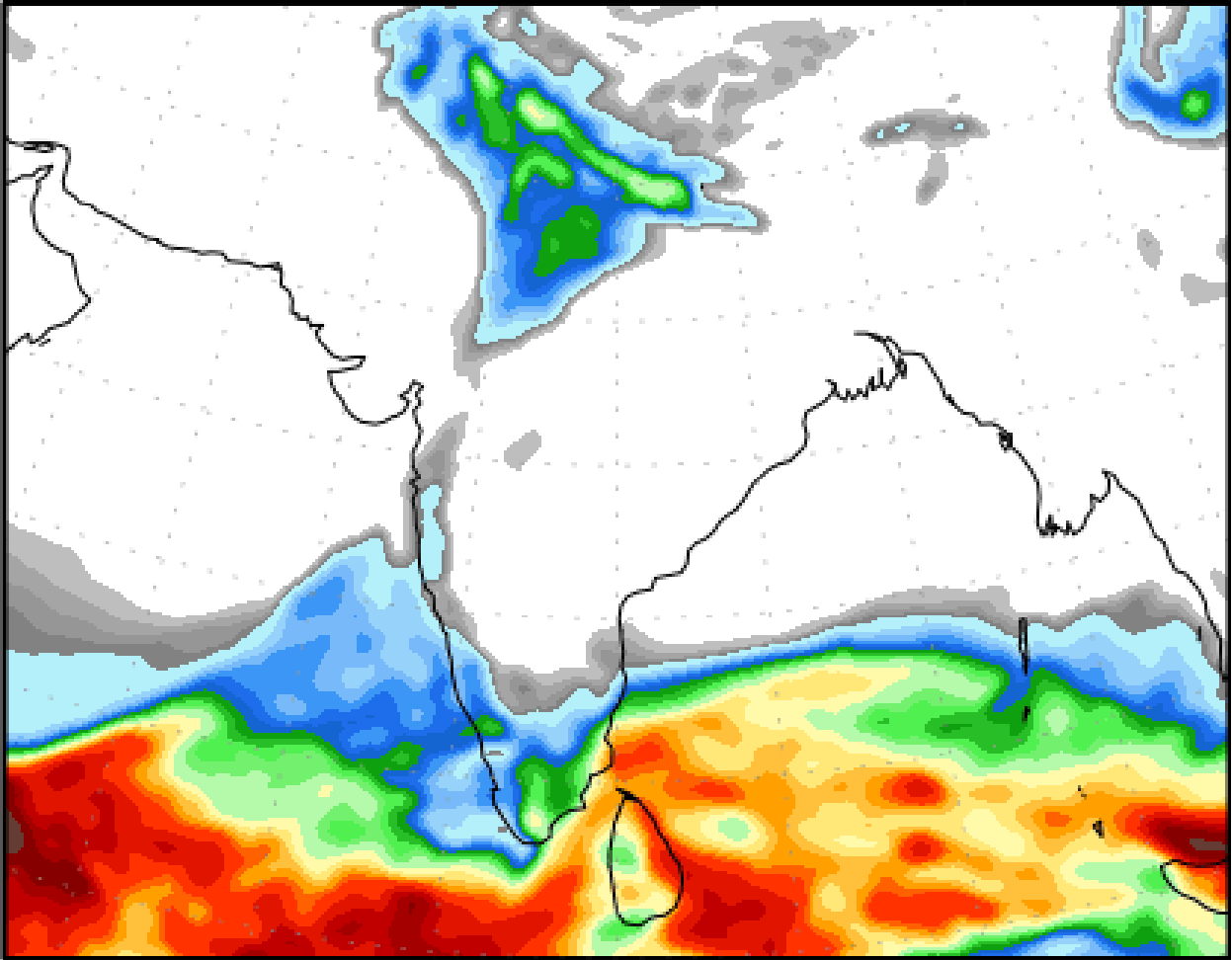


Figure:2. Precipitation forecast for 29 Dec to 06 Jan 2021 (Source: NOAA NCEP).

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