

# **All India Coordinated Research Project on Agrometeorology**

## **CRIDA, Santoshnagar, Hyderabad – 500 059**

### **Daily Crop Weather Information as on 30 December 2020**

**Attention: Rajiv Maheshwari, OSD, ICAR**

#### **Significant Weather Features (IMD)**

- No significant change in minimum temperatures over most parts of Northwest and Central India during next 2 days and rise by 3-5°C thereafter for subsequent 3 days.
- Cold Wave to Severe Cold Wave conditions in isolated to some pockets very likely over Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, Rajasthan and West Madhya Pradesh during next 2 days and abatement of Cold Wave conditions from these regions thereafter.
- Cold Day conditions in isolated to some pockets very likely over Himachal Pradesh, Punjab, Haryana, Chandigarh & Delhi and West Madhya Pradesh during next 2 days.
- Dense to very dense fog in some pockets very likely over Punjab, Haryana, Chandigarh & Delhi and West Uttar Pradesh during next 2 days and dense fog in isolated pockets very likely over Uttarakhand, East Uttar Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura during next 2 days.
- Ground Frost conditions in isolated pockets very likely over Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, Rajasthan and West Madhya Pradesh during next 2 days.
- Light to moderate rainfall at isolated/few places with isolated thunderstorm & lightning very likely over Western Himalayan Region and adjoining plains of Northwest India during 02nd-05th, January, 2021.
- 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 a few places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffrabad and Tamil Nadu, Puducherry & Karaikal.
- Fog observed (at 0830 hours IST of today): Dense to very dense fog in isolated pockets over Jammu division, Punjab, Haryana, Chandigarh & Delhi, East Rajasthan, West Uttar Pradesh, coastal Odisha and Tripura and moderate fog in isolated pockets over Himachal Pradesh and West Rajasthan.

- Cold Wave to Severe Cold Wave conditions (at 0830 hrs IST of today) observed in isolated pockets over Punjab, Rajasthan, Himachal Pradesh and Uttarakhand and Cold Wave conditions in isolated pockets over Jammu division, Haryana, Chandigarh & Delhi, Uttar Pradesh, northwest Madhya Pradesh and Saurashtra & Kutch.
- Yesterday, Cold Day Conditions (at 1730 hrs IST of yesterday) were observed in a few pockets over West Madhya Pradesh and in isolated pockets over Jammu Division, Himachal Pradesh, Punjab and Haryana & Chandigarh.
- Maximum Temperature Departures as on 29-12-2020: Maximum temperatures were appreciably above normal (3.1°C to 5.0°C) at isolated places over Vidarbha and Chhattisgarh ; above normal (1.6°C to 3.0°C) at many places over Jharkhand and South Interior Karnataka; at a few places over Arunachal Pradesh, Assam & Meghalaya, Odisha, Madhya Maharashtra, Marathwada and Kerala and at isolated places over Himachal Pradesh, Uttarakhand, Gangetic West Bengal, Coastal & North Interior Karnataka and Tamil Nadu, Puducherry & Karaikal. They were markedly below normal (-5.1°C or less) at a few places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Punjab, Haryana, Chandigarh & Delhi and West Madhya Pradesh and at isolated places over Gujarat region; appreciably below normal (-3.1°C to -5.0°C) at a few places over Saurashtra & Kutch and isolated places over Sub Himalayan West Bengal & Sikkim, Konkan & Goa and East Madhya Pradesh and below normal (-1.6°C to -3.0°C) at most places over West Rajasthan and West Uttar Pradesh; at a few places over East Rajasthan and at isolated places over Andaman & Nicobar Islands and near normal over rest parts of the country. Yesterday, the highest maximum temperature of 35.0°C was reported at Bulsar (Gujarat Region) over the country.
- Minimum Temperature Departures as on 30-12-2020: Minimum temperatures are appreciably above normal (3.1°C to 5.0°C) at isolated places over East Madhya Pradesh, Marathawada and Tamilnadu, Puducherry & Karaikal; above normal (1.6°C to 3.0°C) at most places over Kerala & Mahe and Lakshadweep; at many places over Rayalaseema; at a few places over Madhya Maharashtra, Vidarbha and South Interior Karnataka; at isolated places over Telangana, Coastal Andhra Pradesh and Andaman & Nicobar Islands. They are markedly below normal (-5.1°C or less) at isolated places over Rajasthan and Uttarakhand; appreciably below normal (-3.1°C to -5.0°C) at a few places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Gangetic West Bengal and Saurashtra & Kutch; at isolated places over Haryana, Chandigarh & Delhi, Uttar Pradesh and West Madhya Pradesh; below normal (-1.6°C to -3.0°C) at many places over Himachal Pradesh, Gujarat region and Punjab; at

isolated places over Assam & Meghalaya and near normal over rest parts of the country. The lowest minimum temperature of  $-1.5^{\circ}\text{C}$  reported at Churu (West Rajasthan) over the plains of the country.

### **Weather Warning during the next 5 days (IMD)**

- 30 December (Day 1): Cold Wave to Severe Cold Wave conditions very likely in many pockets over Punjab and Haryana, Chandigarh & Delhi and in isolated pockets over Rajasthan. Cold Wave conditions in isolated pockets over Himachal Pradesh, Uttarakhand, Uttar Pradesh and West Madhya Pradesh. Cold Day to severe Cold Day conditions very likely in some pockets over Punjab and Haryana, Chandigarh & Delhi. Cold Day conditions in some pockets over Himachal Pradesh and West Madhya Pradesh. Dense to Very Dense Fog very likely in many pockets over Punjab and Haryana, Chandigarh & Delhi and in isolated pockets over West Uttar Pradesh. Dense fog in isolated pockets over Uttarakhand, East Uttar Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura. Ground Frost very likely at isolated places over Punjab, Haryana, Chandigarh & Delhi, Rajasthan, Himachal Pradesh, Uttarakhand, Uttar Pradesh and West Madhya Pradesh. Thunderstorm accompanied with lightning very likely at isolated places over Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal.
- 31 December (Day 2): Cold Wave conditions very likely in some pockets over Punjab and Haryana, Chandigarh & Delhi and in isolated pockets over Himachal Pradesh, Uttarakhand, Uttar Pradesh and Rajasthan. Cold Day conditions very likely in isolated pockets over Himachal Pradesh, 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, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura. Ground Frost very likely at isolated places over Punjab, Haryana, Chandigarh & Delhi, Himachal Pradesh, Uttarakhand, Uttar Pradesh and Rajasthan. Thunderstorm accompanied with lightning very likely at isolated places over Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal.
- 01 January (Day 3): Cold Day conditions very likely in isolated pockets over Punjab and Haryana, Chandigarh & Delhi. Dense Fog very likely in isolated pockets over Punjab, Uttarakhand, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- 02 January (Day 4): Thunderstorm accompanied with lightning likely at isolated places over Haryana, Chandigarh & Delhi, West Uttar Pradesh, East Rajasthan and West Madhya Pradesh.

- 03 January (Day 5): Thunderstorm accompanied with lightning likely at isolated places over Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, East Rajasthan and West Madhya Pradesh.
- The weather outlook for seven days i.e., 30 December to 07 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)

### **Konkan region**

#### **Weather condition:**

Atmospheric condition was cloudy during morning hours around Dapoli during last week. Therefore 8.0 to 9.2 Bright sunshine hours was recorded during last week. During last week 0.0 mm rainfall was recorded at Agrometeorological observatory, Dr. B.S.K.K.V. Dapoli. The maximum and minimum temperature ranged from 31.9 to 33.2 and 8.9 to 16.9 oC respectively. Wind velocity ranged from 2.1 to 2.6 km and wind was blowing from south westerly Direction.

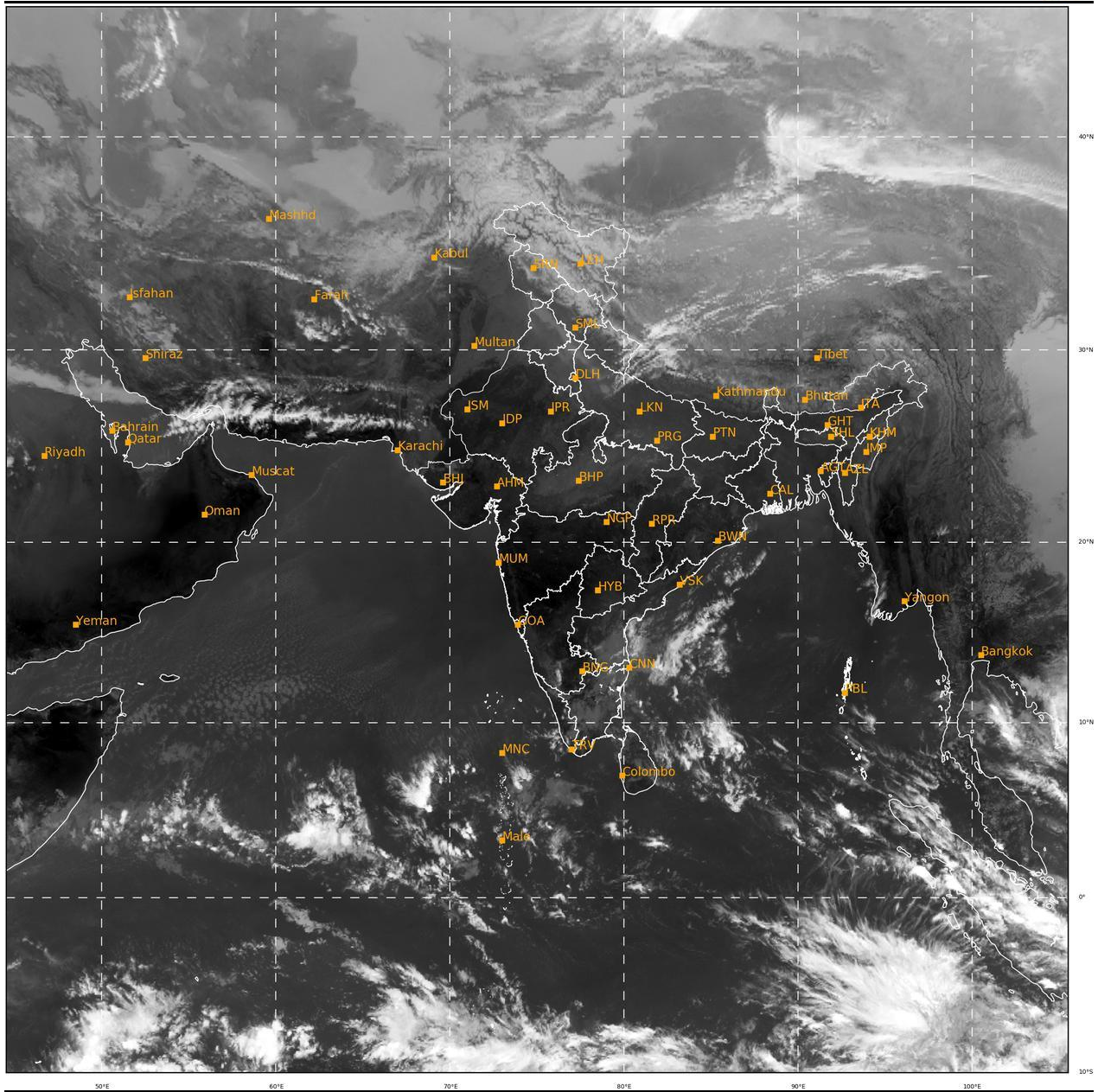
#### **Contingency measure:**

- Groundnut: There is possibility for incidence of leaf miner on groundnut. If incidence is noticed, spray quinalphos 25%EC @20 ml or Lambda cyhalothrin 5%EC@ 6 ml per 10 liter of water
- Mango: There is possibility incidence of hoppers and powdery mildew disease on flower bud stage in mango. To protect the flower bud from pest and powdery mildew diseases, spray Lambda cyhalothrin 5%EC @ 6 ml + hexaconazole @ 5 ml or wettable Sulphur 80% @ 20 gm per 10 liter in water. There is possibility incidence of hoppers, midge fly and powdery mildew disease on mango inflorescence. For management of pest and disease, spray of Imidacloprid 17.8% SL @ 6 ml per 10 liter of water before the flower opening to avoid the adverse effect on pollinators. Also add Hexaconazole 5% @ 5 ml or wettable Sulphur 80% @ 20 gm per 10 liter in water for control of powdery mildew disease. Avoid spraying if already taken. The recommended dose of insecticides is applicable for manually operating sprayer. Situation of clear sky and increase in evaporation rate, provide irrigation to newly planted mango orchard @ 30 liters of water at 7 days interval (1 years old), 15 days interval (2 years old) and one-month interval to 3 years old tree. New growth below graft union should be removed regularly.

- Cashewnut: There is possibility of incidence of tea mosquito bugs and thrips on the inflorescence of cashewnut, to protect the cashew inflorescence, spray Profenophos 50% EC @10 ml per 10 liter of water. There is possibility of incidence of tea mosquito bugs and thrips on the fruits of cashewnut, to protect the cashew during fruit bearing stage, spray Lambda cyhalothrin 5% EC @6 ml or Acetamiprid 20%SP @ 5 gms per 10 liter of water. (insecticide is not under label claim). For increasing yield and size of cashewnut, spray entire tree with 25% cow urine @ 5 lit per tree and drench the solution of 25% cow urine @ 10 liter per tree. Situation of clear sky and increase evaporation rate, provide irrigation to newly planted cashewnut orchard @ 15 liters of water at 15 days intervals. New growth below graft union should be removed regularly.
- Coconut: Provide irrigation to first four years old coconut orchard at 6 to 7 days interval and for above four years old orchard provide irrigation at 5 to 10 days interval. Due to increase in temperature, there is possibility of incidence of rugose spiraling white fly on coconut, Nymphs and adults suck the sap from lower surface of leaves and produce honey dew sugary substance which develop growth of sooty mould fungus. If incidence is noticed spray 50 ml Neem seed kernel extract 0.5% @30 ml per 10 liters of water. For the control of black fungus on leaves, spray 1% starch solution (10 gms in 10 liter of water).
- Arecanut: Harvest the fully ripe nut when nuts get orange colour and sundry for 40 to 45 days. nuts are turned over at regular interval to ensure uniform drying. For 3-year-old arecanut palm apply 2nd split dose 160 g urea and 125 g muriate of potash per tree. by digging circular ring about 1 meter from base of tree and fill the circular ring with soil after application of fertilizer. Apply 1/3rd and 2/3rd of abovementioned fertilizers dose per tree for 1 and 2-years old arecanut plantation, respectively. Provide irrigation to arecanut orchard at 6-8 days interval.
- Chilli: There is possibility of incidence of leaf curl disease in chilli due to thrips, white flies and mites which results into curling of leaves and stunted growth of plant. If incidence is noticed on transplanted chilli, spray dimethoate 30%EC 10 ml + Sulphur 20 gms per 10 liter of water at 10-15 days interval when intensity of rainfall is low. For control of thrips spray cow urine 10% and Azadirachtin 10000 PPM @3 ml per liter of water alternatively, seven days after transplanting at 10-15 days interval. Apply 2nd split dose of nitrogen fertilizer @ 3 g urea per plant at the time of flowering. Provide irrigation to chilli crop at 4-5 days interval regularly.
- Cabbage: Follow weeding in cabbage at 20 to 25 days after transplanting and apply second spit dose of nitrogen @ 35 kg urea per acre. Follow earthing up at the time of fertilizer application. Provide irrigation to cabbage crop as per requirement.

SAT : INSAT-3D IMG  
IMG\_TIR1 10.8 um  
LIC Mercator

30-12-2020/(0800 to 0827) GMT  
30-12-2020/(1330 to 1357) IST

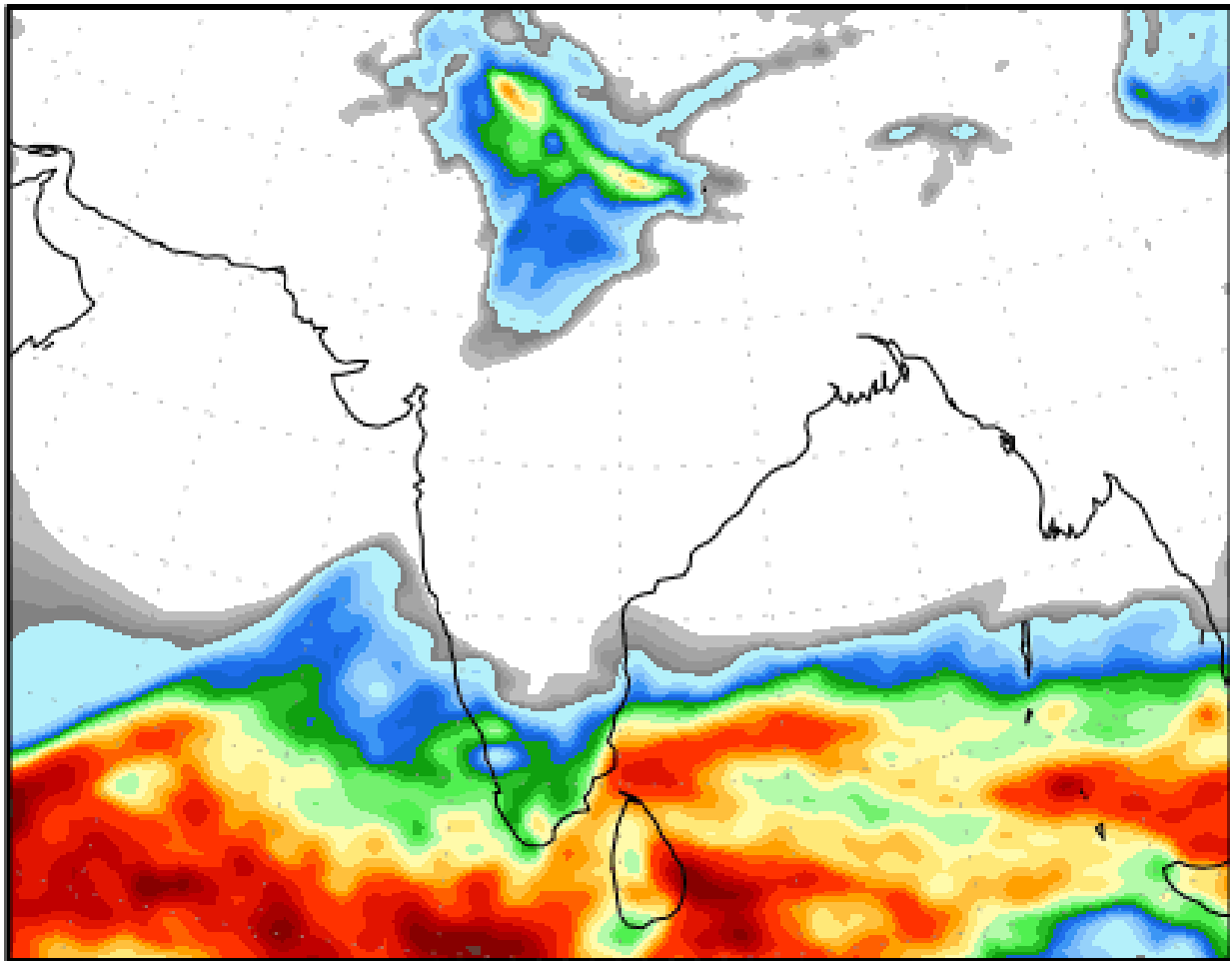


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IMD, DELHI

Figure: 1. Latest available satellite picture as on 30 December 2020 at 1357 Hrs (IST).  
(Source: IMD).



**Figure:2. Precipitation forecast for 30 Dec to 07 Jan 2021 (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.*