

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

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

### **Daily Crop Weather Information as on 26 December 2020**

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

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

- Under the influence of the approaching Western Disturbance Scattered to Fairly widespread rainfall/snowfall is very likely over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad; isolated to scattered rainfall/snowfall over Himachal Pradesh, Uttarakhand and isolated rain/thundershowers over northern parts of Punjab, Haryana & Chandigarh on 27th-28th December, 2020.
- After the passage of the above system and under the influence of the consequent strengthening of cold & dry northwesterly/northerly lower level winds:
  - i) Cold Wave to Severe Cold Wave conditions are likely to re-establish over Punjab, Haryana, Chandigarh & Delhi, Rajasthan and West Uttar Pradesh from 29th December. its is likely to increase in spatial coverage during the subsequent 2 days. Northern parts of Saurashtra & Kutch and West Madhya Pradesh also likely to experience cold wave conditions on these days.
  - ii) Ground Frost conditions are likely in isolated pockets over Uttarakhand, Himachal Pradesh, Punjab, Haryana, Chandigarh & Delhi, Rajasthan and West Madhya Pradesh during 28th-29th December, 2020.
  - iii) Cold Day conditions are likely over Punjab, Haryana, Chandigarh & Delhi on 28th & 29th December and over North Rajasthan 29th & 30th December 2020.
  - iv) Dense to very dense fog are likely over Punjab, Haryana, Chandigarh & Delhi in morning hours during on 28th to 30th December and Dense fog also likely over Uttar Pradesh in morning hours on 29th & 30th December 2020.
- 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 most places over Andaman & Nicobar Islands and at isolated places over Lakshadweep.
- Fog observed at (0830 hours IST of today): Dense to very dense fog in isolated pockets over Punjab; Dense fog in isolated pockets over West Rajasthan and Uttarakhand.

- Maximum Temperature Departures as on 25-12-2020: Maximum temperatures were appreciably above normal (3.1°C to 5.0°C) at isolated places over Tamil Nadu, Puducherry & Karaikal; above normal (1.6°C to 3.0°C) at many places over Himachal Pradesh, West Rajasthan and Assam & Meghalaya; at a few places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Konkan & Goa; at isolated places over Madhya Maharashtra, Odisha and Kerala & Mahe. They were below normal (-1.6°C to -3.0°C) at a few places over East Uttar Pradesh and Andaman & Nicobar Islands and at isolated places over Gangetic west Bengal and Madhya Pradesh and near normal over rest parts of the country. Yesterday, the highest maximum temperature of 35.4°C was reported at Karwar (Coastal Karnataka) over the country.
- Minimum Temperature Departures as on 26-12-2020: Minimum temperatures are above normal (1.6°C to 3.0°C) at many places over Gujarat Region and Kerala & Mahe; at a few places over Saurashtra & Kutch, Konkan & Goa, Madhya Maharashtra, Coastal Karnataka, Lakshadweep and Andaman & Nicobar Islands ; at isolated places over West Rajasthan, West Madhya Pradesh and North Interior Karnataka. They are appreciably below normal (-3.1°C to -5.0°C) at a few places over East Madhya Pradesh and Bihar; at isolated places over Odisha and Gangetic West Bengal; below normal (-1.6°C to -3.0°C) at most places over Haryana, Chandigarh & Delhi, many places over Vidarbha, East Uttar Pradesh and Chhattisgarh; at a few places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Punjab, Telangana, Rayalaseema and Sub-Himalayan West Bengal & Sikkim; at isolated places over Himachal Pradesh, Uttarakhand, West Uttar Pradesh, Coastal Andhra Pradesh & Yanam, Marathwada, South Interior Karnataka and Assam & Meghalaya and near normal over rest parts of the country. The lowest minimum temperature of 2.0°C reported at Hissar (Haryana) over the plains of the country.

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

- 26 December (Day 1): Cold Wave conditions very likely at isolated pockets over Bihar and Gangetic West Bengal. Dense fog very likely in isolated pockets over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura. Heavy rainfall very likely at isolated places over Andaman & Nicobar Islands.
- 27 December (Day 2): Dense fog very likely in isolated pockets over Assam & Meghalaya.
- 28 December (Day 3): Cold Wave to Severe Cold Wave conditions very likely at isolated pockets over Punjab and Haryana, Chandigarh & Delhi and Cold Wave conditions at isolated pockets over Saurashtra & Kutch. Cold Day conditions very likely at isolated pockets over Punjab and Haryana, Chandigarh & Delhi. Dense to

very dense fog very likely in isolated pockets over Punjab and Haryana, Chandigarh & Delhi and Dense fog very likely in isolated pockets over Assam & Meghalaya. Ground Frost very likely at isolated places over Uttarakhand and Himachal Pradesh.

- 29 December (Day 4): Cold Wave to Severe Cold Wave conditions very likely at a few pockets over Punjab and Haryana, Chandigarh & Delhi and Cold Wave conditions at isolated pockets over Himachal Pradesh, Uttarakhand, Uttar Pradesh, Rajasthan, Saurashtra & Kutch and West Madhya Pradesh. Thunderstorms/lightning likely at isolated places over Tamil Nadu, Puducherry & Karaikal. Cold Day conditions very likely at isolated pockets over Punjab, Haryana, Chandigarh & Delhi and North Rajasthan. Dense to very dense fog very likely in isolated pockets over Punjab and Haryana, Chandigarh & Delhi and Dense fog very likely in isolated pockets over Uttar Pradesh. Ground Frost very likely at isolated places over Punjab, Haryana, Chandigarh & Delhi, Uttarakhand, Himachal Pradesh, West Madhya Pradesh and Rajasthan.
- 30 December (Day 5): Cold Wave to Severe Cold Wave conditions very likely at a few pockets over Punjab, Rajasthan and Haryana, Chandigarh & Delhi and Cold Wave conditions at isolated pockets over Himachal Pradesh, Uttarakhand, Uttar Pradesh, and Madhya Pradesh. Thunderstorms/lightning likely at isolated places over Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe. Cold Day conditions very likely at isolated pockets over north Rajasthan. Dense fog very likely in isolated pockets over Punjab, Haryana, Chandigarh & Delhi and Uttar Pradesh. Ground Frost very likely at isolated places over Punjab, Haryana, Chandigarh & Delhi, Uttarakhand, Himachal Pradesh, West Madhya Pradesh and Rajasthan.
- The weather outlook for seven days i.e., 26 December to 03 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)**

### **Himachal Pradesh**

#### **Weather condition:**

The maximum temperature ranged between 12.5 to 20.5 °C which was mostly above normal by 1.3 to 4.6 °C and minimum temperature ranged between 0.0 to 3.5°C which was below normal by 2.6 to 6.0 °C. No rainfall was received during the week against the normal of 11.6 mm. The relative humidity varied between 26-69 % and sunshine hours

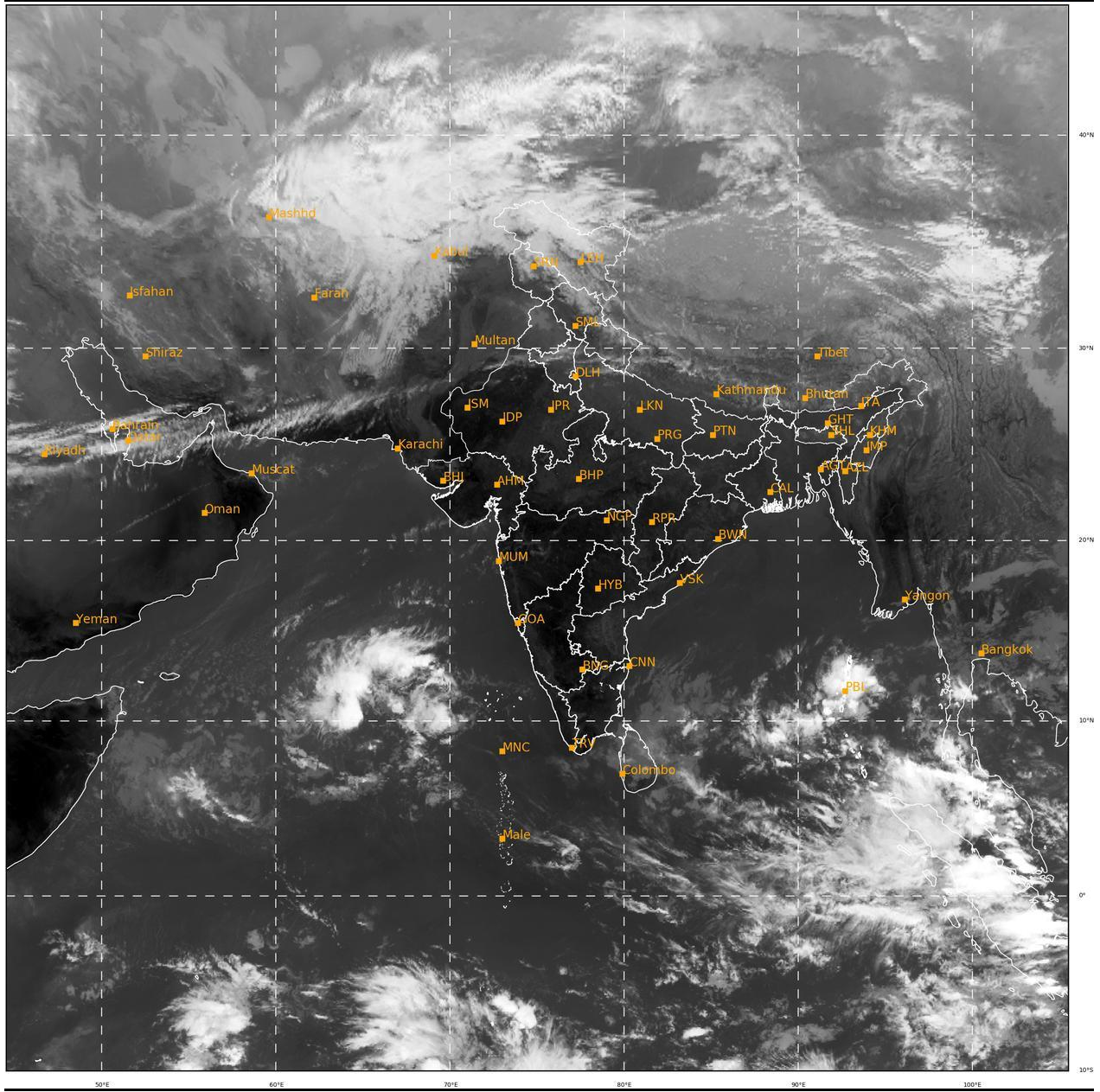
between 7.5-9.5 hrs/day with variable sky conditions (Octa 0-6). The evaporation rate varied 2.0-2.5 mm per day.

### Contingency measure:

- Rabi Crops: For chemical weed control in wheat, spray isoproturon (75WP) @ 70 gm + 2,4D (80 WP) @ 50 gm or clodinafop @ 24 g (10WP) or 16 g (15 WP) per kanal after 35- 40 days of sowing i.e. 2-3 leaf stage of weed. After 2-3 days of clodinafop spray, apply 2,4-D @ 50 gm/Kanal. Use 30 litres of water for making a solution for one hectare.
- Pulses: Sowing of gram and lentil should be completed in lower areas. Ensure to take proper moisture in the soil. Seed treatment with Rhizobium and Phosphorus solubilising bacteria is advised To prevent scorching disease in gram, treat the seeds with Dithane M-45 (2.5 gm / kg of seeds).
- Toria: Keeping in view of relative humidity farmers are advised for monitoring of mustard crop against attack of white rust. If infection is high than spraying of DithaneM-45 @ 2 gram/ litre of water of water is advised. Farmers are advised for monitoring of mustard crop against painted bug and aphid attack. Thinning and weeding is recommended in timely sown mustard crop.
- Stored Grains: The grains should be dried properly to bring down moisture level below 12 % before storage. Weather is conducive for attack of stored grains pests like rice weevil, lesser grain borer and rice moth. In Grain store bins put one pouch of celhpos (3g) or quickphos (12g) or Fumino pouch in a wet cloth in the middle of bin and keep the bin airtight for some time.
- Fodder Crops: Intercultural operations on already sown berseem, lucerne and oats for fodder of Rabi season also advised. The lantana weeds in the grasslands may be cut so that regenerated growth during September can be sprayed with 1% glyphosate for its control. Complete Sowing berseem, lucerne and oats for fodder of Rabi season also advised. Mix seed of gobhi sarson to have nutritious production of fodder during first cut.
- Vegetable Crops: Add mulch material in space between two rows of vegetables crops for conservation of soil moisture and maintaining the soil temperature.
- Tomato, Chilli, Capsicum and Brinjal: Weeding and hoeing in all crops and vegetables should be done for optimum growth.
- Radish and Turnip & Peas: Direct Sowing of radish, carrot, turnip, palak and methi carrot, broccoli, lettuce can be done in mid hill areas of the State. In mid hill region nursery sowing of Chinese cabbage. ). For the control of damping off disease in vegetable crop mix thoroughly Dithane M 45 dust 10-15 g in 1X3metre beds.

- Other Vegetables: It is time for planting of onion bulbs in 30X 10 cm spacing for harvesting green onion. Farmers are advised to monitor their fields regularly. Spray of Imidacloprid 17.8 % SC@ 1.0 ml / 3 lit of water is recommended against white flies and other sucking pests in all crop and vegetables when sky is clear.
- Potato: Farmers are advised to start earthing-up in potato if crop has attained a height of 15-22 cm. If so required, the practice may be repeated after 15 days. Due to high relative humidity, infection of blight may occur in potato and tomato. Constant monitoring is advised.
- Livestock: Temperature is falling and a cold wave has gripped the area, so protect the newly born calves and animals from cold. Feed pregnant and lactating cows and buffaloes with balance feed including mineral mixture. Also keep the cowshed clean and do not allow the water to stagnate in the cow shed. Provide dry bedding to animals and save them from cold winds. Increase energy contents of concentrate mixture by adding 5-10 per cent more of cereal grains. Feed wellchaffed legumes mixed with wheat-straw in the ratio of 10:1. Deworming of calves should be continued against ascaris with piperazine liquid 4ml/10 kg body weight. New-born calves need special care against severe winters as they are susceptible to pneumonia. So keep them warm by providing dry bedding and protection against cold winds. Give them vitamin A concentrate 1ml daily in milk for three days, to be repeated after a month. While feeding animals on dry roughages, provide 40 g mineral mixture to every milk giving cow or buffalo. The weather is suitable for the attack of pink eye disease in newly born calves, for control prepare the solution of 1% boric acid in boiled water and wash eyes at regular interval of three hours.
- Mushrooms: Dingri can be sown in closed room, maintain temperature of 25-28 degree Celsius and relative humidity of 80-85 % for good crop. Advised to fill compost bags with spawn for button mushrooms. Sprinkle water to maintain humidity but ensure air circulation by fans to prevent water retention on mushroom.
- Horticulture: Wrapping of plastic sheets around mango trunk should be done for preventing climbing of young mealy bugs. Apply grease to seal any cracks in the polythene sheets. If the stem borer problem is there in spray insecticide or control them with applying kerosene oil. Keep the basins of the plants free from weeds. Irrigation should be done in all orchards. The ensuing weather is conducive for the attack of leaf minor in Citrus. For its control, spray 10 ml Matasystox or Malathion 10 ml in 10 litre of water. For the control of Citrus canker spray Streptocycline Sulphate 500 ppm solution. Remove the shoots below the graft or bud unions. Prepare the pits for planting the winter plants like pecan nut, walnut, almond plum and peach.



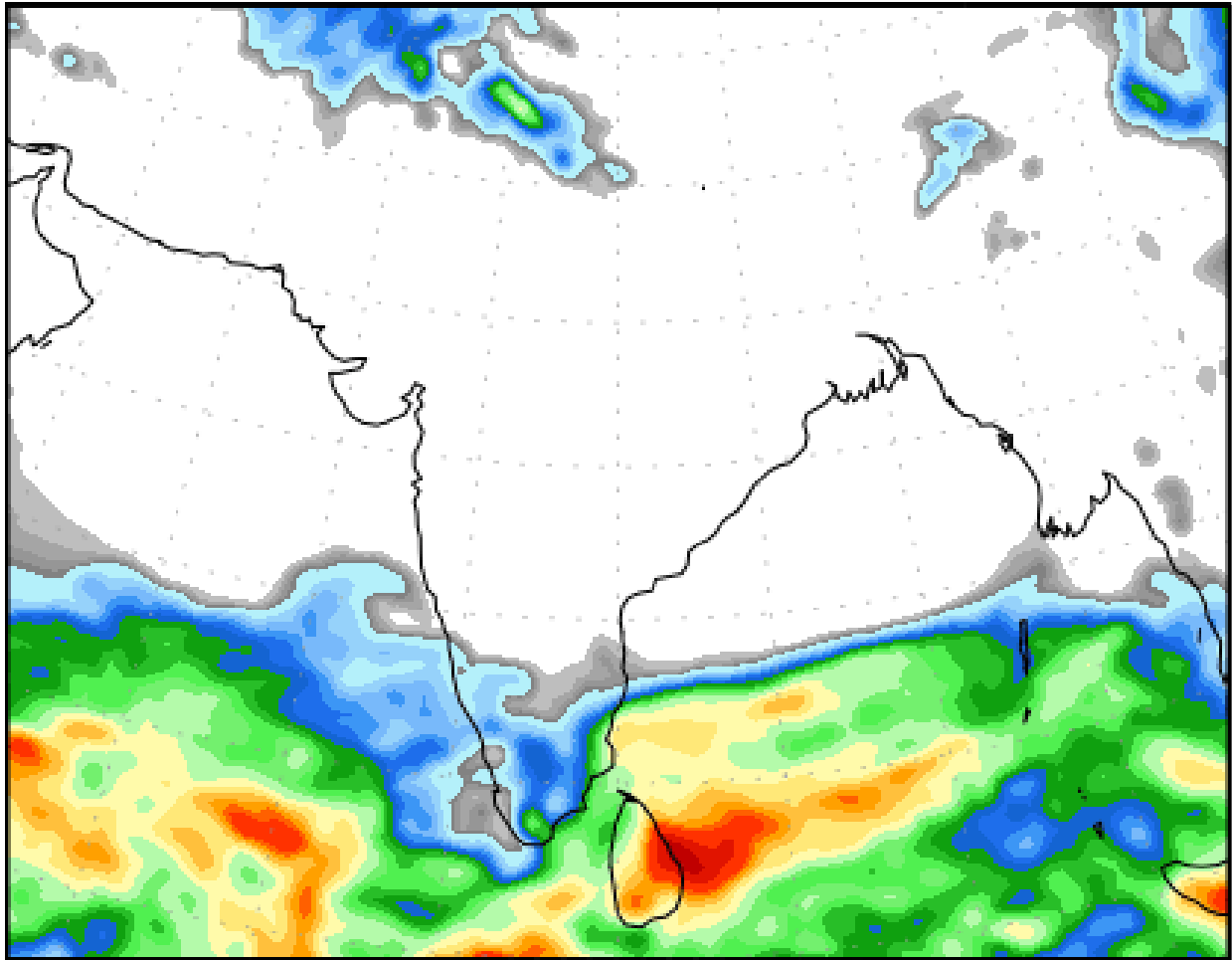


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**Figure: 1. Latest available satellite picture as on 26 December 2020 at 1357 Hrs (IST).  
(Source: IMD).**



**Figure:2. Precipitation forecast for 26 Dec to 03 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.*