All India Coordinated Research Project on Agrometeorology CRIDA, Santoshnagar, Hyderabad – 500 059

Daily Crop Weather Information as on 12 December 2019

Attention: Rajiv Maheshwari, OSD, ICAR

Significant Weather Features (IMD)

- The Western Disturbance as a cyclonic circulation now lies over Afghanistan & adjoining Pakistan between 3.1 & 4.5 km above mean sea level with a trough aloft at 5.8 km above mean sea level with its axis roughly along Long. 64°E to the north of 24°N. The induced cyclonic circulation lies over southwest Rajasthan & neighbourhood at 2.1 km above mean sea level.
- These systems are likely to move east-northeastwards during next 2 days. Under their influence, widespread rainfall with isolated heavy rainfall/snow accompanied with thunderstorm/hailstorm is very likely over Western Himalayan region during next 48 hours.
- Fairly widespread to widespread rain with isolated heavy rainfall accompanied with thunderstorm/hailstorm is also very likely over Punjab, Haryana, Chandigarh & Delhi and West Uttar Pradesh during the same period. Isolated thunderstorm accompanied with lightning is also likely over parts of central India.
- Isolated dense fog is very likely to occur over parts of Assam & Meghalaya and Mizoram & Tripura during next 24 hours.
- The images showing the latest satellite picture in figure. 1.

Main Weather Observations (IMD)

Rain/Thundershowers observed (from 0830 hours IST to 1730 hours IST of today): at most places over Himachal Pradesh; at a few places over Jammu & Kashmir, Uttarakhand, Punjab, East Madhya Pradesh and West Rajasthan and at isolated places over Haryana, Chandigarh & Delhi, East Uttar Pradesh, East Rajasthan, West Madhya Pradesh, Gujarat State and Coastal Andhra Pradesh & Yanam. Rainfall recorded at 1730 hours IST of today (1 cm or more): Khajuraho-3; Bhuntar, Dharmshala, Manali, Bhuntar and Satna- 2 each; Bhopal and Ganganagar-1 each. Dense fog observed in isolated places over West Rajasthan and Moderate fog observed in isolated places over Himachal Pradesh and Assam & Meghalaya. Visibility recorded at 1730 hours IST of today (200 m or less):

Bikaner-50; Kalpa and Haflong-200 each. Thunderstorm observed (from 0830 hours IST to 1730 hours IST of today): at isolated places over Haryana, Chandigarh & Delhi, Rajasthan and Gujarat Region.

- Maximum Temperature Departures as on 12-12-2019: Maximum temperatures are appreciably above normal (3.1°C to 5.0°C) at isolated places over Chhattisgarh; above normal (1.6°C to 3.0°C) at many places over Jharkhand; at a few places over Odisha and South Interior Karnataka; at isolated places over Madhya Pradesh, Vidarbha, Madhya Maharashtra, Telangana, Gangetic West Bengal, Coastal Andhra Pradesh & Yanam, Telangana, Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal, Andaman & Nicobar Islands and Lakshadweep. They are markedly below normal (-5.1°C or less) at most places over Himachal Pradesh; at many places over Jammu & Kashmir and Uttarakhand; at a few places over Haryana, Chandigarh & Delhi and West Rajasthan; appreciably below normal (-3.1°C to 5.0°C) at most places over Punjab; at many places over Sub-Himalayan West Bengal & Sikkim; below normal (-1.6°C to -3.0°C) at most places over Uttar Pradesh; at isolated places over East Rajasthan and near normal over rest parts of the country. The highest maximum temperature of 36.0°C recorded at Karwar (Coastal Karnataka).
- Minimum Temperature Departures as on 12-12-2019: Minimum temperatures are markedly above normal (5.1°C or more) at many places over Punjab and West Rajasthan; at a few places over Madhya Maharashtra and at isolated places over Haryana, Chandigarh & Delhi; appreciably above normal (3.1°C to 5.0°C) at many places over East Rajasthan, Madhya Pradesh and Gangetic West Bengal; at a few places over West Uttar Pradesh and at isolated places over Vidarbha, and Saurashtra & Kutch; above normal (1.6°C to 3.0°C) at most places over Nagaland, Manipur, Mizoram & Tripura and Jharkhand; at many places over Bihar, Odisha, Telangana, Kerala & Mahe and Andaman & Nicobar Island; at a few places over Assam & Meghalaya, Chhattisgarh, Konkan & Goa and Gujarat region and at isolated places over Coastal Andhra Pradesh, Marathwada, Coastal Karnataka, Rayalaseema and Tamilnadu, Puducherry & Karaikal. They are below normal (1.6°C to -3.0°C) at isolated places over Sub-Himalayan West Bengal & Sikkim and near normal over rest parts of the country. The lowest minimum temperature of 8.6°C recorded at Alwar (East Rajasthan) over plains of the country.

Weather Warning during next 5 days (IMD)

- 12 December (Day 1): Thunderstorm/hailstorm accompanied with lightning very likely at isolated places over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, North Rajasthan, Madhya Pradesh,Punjab, Haryana, Chandigarh & Delhi and West Uttar Pradesh. Heavy rain/snow very likely at isolated places over Jammu & Kashmir, Uttarakhand and Himachal Pradesh and Heavy rain at isolated places over Punjab, Haryana, Chandigarh & Delhi and West Uttar Pradesh. Dense fog very likely in isolated pockets over south Assam & Meghalaya and Mizoram & Tripura.
- 13 December (Day 2): Thunderstorm/hailstorm accompanied with lightning very likely at isolated places over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi and West Uttar Pradesh and Thunderstorm accompanied with lightning at isolated places over Madhya Pradesh and Tamilnadu, Puducherry & Karaikal. Heavy rain/snow very likely at isolated places over Jammu & Kashmir, Uttarakhand and Himachal Pradesh and Heavy rain at isolated places over Punjab, Haryana, Chandigarh & Delhi, West Uttar Pradesh and Tamilnadu, Puducherry & Karaikal. Dense fog at a few places with very dense fog in isolated pockets very likely over north Rajasthan.
- 14 December (Day 3): Thunderstorm accompanied with lightning very likely at isolated places over Chhattisgarh and Tamilnadu, Puducherry & Karaikal. Dense fog at a few places with very dense fog in isolated pockets very likely over Punjab, Haryana, Chandigarh & Delhi, north Rajasthan and Uttar Pradesh.
- 15 December (Day 4): Dense fog likely in isolated pockets over Punjab, Haryana, Chandigarh & Delhi, north Rajasthan and Uttar Pradesh.
- 16 December (Day 5): Dense fog likely in isolated pockets over Madhya Pradesh and Bihar.
- The weather outlook for the period of seven days i.e., 12 to 20 Dec 2019 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) Haryana

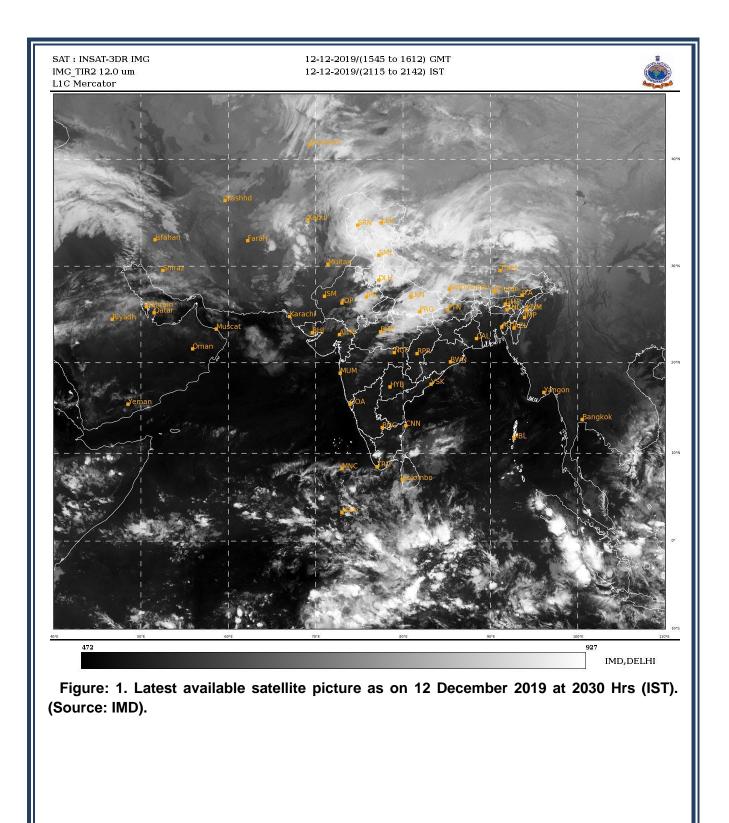
Weather condition:

Weather over the state was clear with morning fog. Maximum temperature was below normal, whereas the minimum temperature was above the normal on few

occasions during this week. Bright sunshine hours were observed from 3.6 to 8.2 hours and total evaporation was 9.4 mm.

Contingency measure:

- Farmers are advised to do sowing of rabi crops.
- Wheat:Farmers are advised to do sowing of wheat with recommended varieties. Before sowing treats the seeds with Bavistin or Vitavex 2.0 g/kg of seed. Apply need based irrigation and fertilizer at CRI stage and adopt weed management practices.
- Mustard/Raya: Apply irrigation and chemicals as per crop requirement. Keep vigil on hairy caterpillar and mustard sawfly.
- Fodder/Barseem: Farmers are advised to apply requirement based irrigation. Sugarcane: Keep on vigilance for insect/pests and apply need based irrigation.
- Vegetables/Fruits: Apply need based irrigation and chemical spray. Keep vigil for insect-pest and diseases and follow proper weed control measures.
- Live stock management: Protect the animals from variable weather conditions and provide clean and dry bedding. Provide 50 grams iodized salt and 50 to 100 grams mineral mixture daily along with animal feed/fodder, green fodder to keep them healthy.



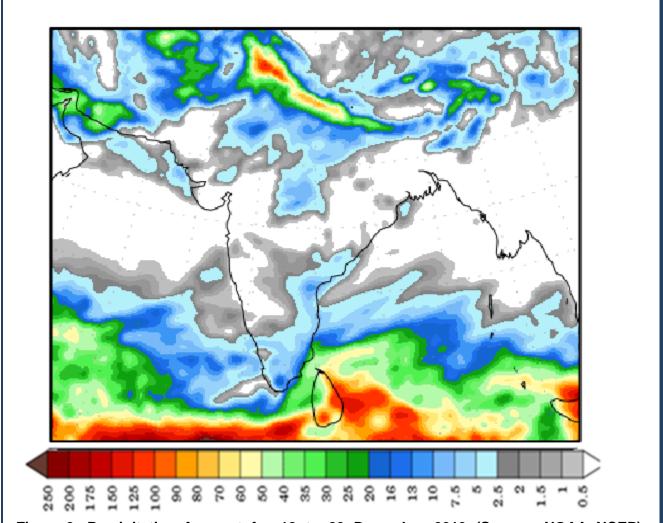


Figure:2. Precipitation forecast for 12 to 20 December 2019 (Source: NOAA NCEP). Disclaimer: The predictability of weather depends on many factors which are dynamic in nature. The success of Agromet advisories provided here depends on the accuracy of the forecasts. In no event will India Meteorological Department (IMD) and Indian Council of Agricultural Research (ICAR) be liable to the user or to 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.