

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

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

### **Daily Crop Weather Information as on 14 January 2020**

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

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

- A fresh Western Disturbance very likely to affect Western Himalayan region & plains of northwest India from 15th January onwards with peak intensity of precipitation on 16th January, 2020.
- Under its influence, scattered rain/snow over Jammu & Kashmir and widespread rain/snow over Himachal Pradesh and Uttarakhand with isolated heavy falls over Uttarakhand on 16th January, 2020. Isolated to scattered rain/thunderstorm over Punjab during 15th-17th; over Madhya Pradesh and Rajasthan during 15th-16th and scattered to fairly widespread rain/thunderstorm over Haryana, Chandigarh & Delhi and Uttar Pradesh during 16th-17th. Isolated thunderstorm accompanied with hail/lightning also likely over Punjab, Haryana, Chandigarh, Rajasthan, Uttar Pradesh and Madhya Pradesh on 15th & 16th January, 2020.
- Dense to very dense fog in morning hours at isolated pockets very likely over Punjab, Haryana, Chandigarh & Delhi, northeast Rajasthan during next 24 hours and over Uttar Pradesh, northwest Rajasthan, Bihar, south Assam & Meghalaya and Mizoram & Tripura during next 48 hours.
- The images showing the latest satellite picture in figure. 1.

#### **Main Weather Observations (IMD)**

- Rain/Thunder showers observed (from 0830 hours IST of yesterday to 0830 hours IST of today): at most places over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, West Rajasthan and at isolated places over West Madhya Pradesh, Saurashtra & Kutch and East Uttar Pradesh.
- Visibility recorded at 0830 Hours IST of today (200 meters): Amritsar, Chandigarh, Patiala, Ganganagar, Churu, Bahraich, Patna, Dhubri, Agartala, Kailashahar and Silchar-25 each; Fursatganj, Sultanpur, Gorakhpur Varanasi, Hissar, Bhiwani, Karnal, Gaya, Bhagalpur and Purnea-50 each; Ludhiana, Ambala, Sheopur, Gwalior, Datia and Varanasi-200 each. Fog recorded at 0830 IST Hours IST of today: Very dense in isolated pockets over Punjab and North West Rajasthan; Dense fog in few pockets over Haryana, Chandigarh & Delhi, East

Uttar Pradesh and Bihar; Moderate fog in isolated Pockets in North West Madhya Pradesh, Assam & Meghalaya and Tripura.

- Yesterday, thunderstorm observed (from 0830 hours IST of yesterday to 0830 hours IST of today): at many places over Jammu & Kashmir and at isolated places over Himachal Pradesh, Uttarakhand, Punjab and Haryana.
- Yesterday, cold Day conditions was observed in some pockets over Uttar Pradesh and Bihar.
- Maximum Temperature Departures as on 13-01-2020: Maximum temperatures were appreciably above normal (3.1°C to 5.0°C) at many places over East Madhya Pradesh; at a few places over West Madhya Pradesh; above normal (1.6°C to 3.0°C) at many places over North Interior Karnataka and Assam & Meghalaya; at a few places over Vidarbha, South Interior Karnataka, Rayalaseema and Tamil-Nadu, Puducherry & Karaikal; at isolated places over East Rajasthan, Coastal Andhra Pradesh & Yanam, Lakshadweep and Jharkhand. They were markedly below normal (-5.1°C or less) at many places over West Rajasthan and Bihar; at a few places over Uttar Pradesh; at isolated places over Jammu & Kashmir, Himachal Pradesh and Uttarakhand; appreciably below normal (-3.1°C to -5.0°C) at most places over Punjab; at a few places over Nagaland, Manipur, Mizoram & Tripura; at isolated places over Sub-Himalayan West Bengal & Sikkim and Gujarat Region; below normal (-1.6°C to -3.0°C) at many places over Saurashtra & Kutch and Gangetic West Bengal; at isolated places over Haryana, Madhya Maharashtra and Andaman & Nicobar Islands and near normal over rest parts of the country. Yesterday, the highest maximum temperature of 36.8°C was recorded at Karwar (Coastal Karnataka).
- Minimum Temperature Departures as on 14-01-2020: Minimum temperatures recorded appreciably above normal (3.6°C TO 5.0°C) at Most places over Uttarakhand; at many places over West Madhya Pradesh; at a few places over Himachal Pradesh; at isolated places over at Gujarat Region and Assam & Meghalaya; above normal (1.6°C to 3.0°C) at most places over Konkan & Goa, Madhya Maharashtra, and East Rajasthan, at many places over East Madhya Pradesh and west Uttar Pradesh; at a few Places over Marathwada and Coastal Andhra Pradesh at isolated Places over Saurashtra & Kutch, Jammu & Kashmir and East Uttar Pradesh; They were appreciably below normal (-3.1°C to -5.0°C) at isolated places over Vidarbha and Chhattisgarh; below normal (-1.6°C to -3.0°C) at most places over Odisha and Gangetic West Bengal ; at a few places over South Interior Karnataka, Rayalseema, Telangana and Bihar; and at isolated places over Sub-Himalayan West Bengal & Sikkim. The lowest minimum temperature of

3.5°C recorded at Narnaul and Hissar (Haryana, Chandigarh & Delhi) and the temperature is near normal over rest plain areas of the country.

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

- 14 January (Day 1): Dense to very dense fog very likely at isolated pockets over Punjab, Haryana, Chandigarh & Delhi, north Rajasthan and Bihar; dense fog at isolated pockets over Uttar Pradesh, south Assam & Meghalaya and Mizoram & Tripura. Thunderstorm accompanied with lightning very likely at isolated places over West Madhya Pradesh. Cold wave condition very likely in isolated pockets over Punjab and Haryana, Chandigarh & Delhi. Cold day to Severe Cold day conditions over some pockets of Bihar and cold day conditions at isolated pockets over Punjab, Uttar Pradesh and West Rajasthan.
- 15 January (Day 2): Dense to very dense fog very likely in isolated pockets over West Rajasthan; dense fog in isolated pockets over Bihar, south Assam & Meghalaya and Mizoram & Tripura. Thunderstorm accompanied with hail & lightning very likely at isolated places over Uttar Pradesh and West Madhya Pradesh; with lightning at isolated places over Haryana, Chandigarh, East Rajasthan and East Madhya Pradesh. Cold day conditions very likely in isolated pockets over Uttar Pradesh and Bihar.
- 16 January (Day 3): Heavy rain/snow likely in isolated places over Uttarakhand; Heavy rain at isolated places over Uttar Pradesh. Thunderstorm accompanied with hail & lightning very likely at isolated places over Haryana, Chandigarh, Uttar Pradesh, Rajasthan, East Madhya Pradesh; with lightning at isolated places over Punjab and West Madhya Pradesh. Dense fog in isolated pockets over Punjab and Odisha. Cold day conditions very likely in isolated pockets over West Uttar Pradesh.
- 17 January (Day 4): Thunderstorm accompanied with lightning at isolated places over Uttar Pradesh. Dense fog in isolated pockets over Punjab, Haryana, Chandigarh & Delhi, north Rajasthan and Odisha.
- 18 January (Day 5): Dense fog in isolated pockets over Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh and north Rajasthan. 17 January (Day 5): No Weather Warning.
- The weather outlook for the period of seven days i.e., 14 to 22 Jan 2020 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)

### **Jammu**

#### **Weather condition:**

Mainly clear to cloudy with foggy weather prevailed during this week along with 7.8 mm rainfall in one rainy day. The maximum temperature remained below normal by 3°C and observed in the range from 11.6-19.0°C. While, minimum temperature remained variable and recorded in the range of 2.4 to 9.2°C. The morning and afternoon relative humidity remained in the range of 83 to 97% and 41 to 90%, respectively. The evaporation and sunshine remained in the range of 0.8 to 1.4 mm/day and 0.7 to 5.8 hrs, respectively.

#### **Contingency measure:**

- Wheat: Postpone irrigation due to chances of rainfall. Apply 2nd dose of urea (25% of basal dose) as top dressing during clear weather. Apply Isoproturon @ 0.75kg a.i + 2, 4-D ethyl ester @ 500 ml/ ha or Metribuzin @ 0.7 kg ai./ha during evening, if crop is 30-35 days old ie 4-6 leaf stage to control weeds.
- Rabi pulses: Postpone irrigation due to chances of rainfall. To manage collar rot and root rot in gram, rogue out affected plants and drench the affected patches of the field with thiram or captan @ 2g/L of water during clear weather. Monitor crop for wilt and blight attack, if observed apply bavistin/carbendazim @ 3gm/litre of water during clear weather.
- Oilseeds: Postpone irrigation in late sown crop due to chances of rainfall. Go for Hoeing, weeding and thinning operation in very late sown mustard crop in order to keep the crop free from weed. If saw fly attack is observed, spray malathion @2ml per lit of water during clear weather.
- Vegetables: To control potato leaf curl and tomato leaf curl virus, remove the virus infected plants and spray with systemic insecticide during clear weather to check the further spread of these diseases. Spray mancozeb @ 0.25% during clear weather, if attack of early blight in tomato and potato is observed. To control late blight of potato, spray crop with Ridomil-MZ or Mancozeb @ 0.25%. Apply Carbofuran @15-20 kg/ha after receipt of rain to control pea maggot attack. Apply malathion @ 2ml/lit of water during clear weather against sawfly. Give weeding & hoeing. Due to present Temperature and RH, congenial for powdery mildew, apply suplex @ 2.5g/lit during clear weather to control the infection.
- Floriculture: Postpone irrigation due to chances of rainfall. Hoeing and weeding is recommended during clear weather. Cut the shoots up to the height of 10-15 cm, if shoots are 20-30 cm high or after 30-45 days after planting to enable the plant

grow erect. Continue Transplanting of marigold. Spray imidacloprid @1.5 ml/lit of water during clear weather, if aphid attack is observed in marigold, chrysanthemum and rose. Spray mixture of Bavistin + Dithane M-45 (1gm+2gm) @ 3gm/lit of water during clear weather, if leaf spot observed in chrysanthemum.

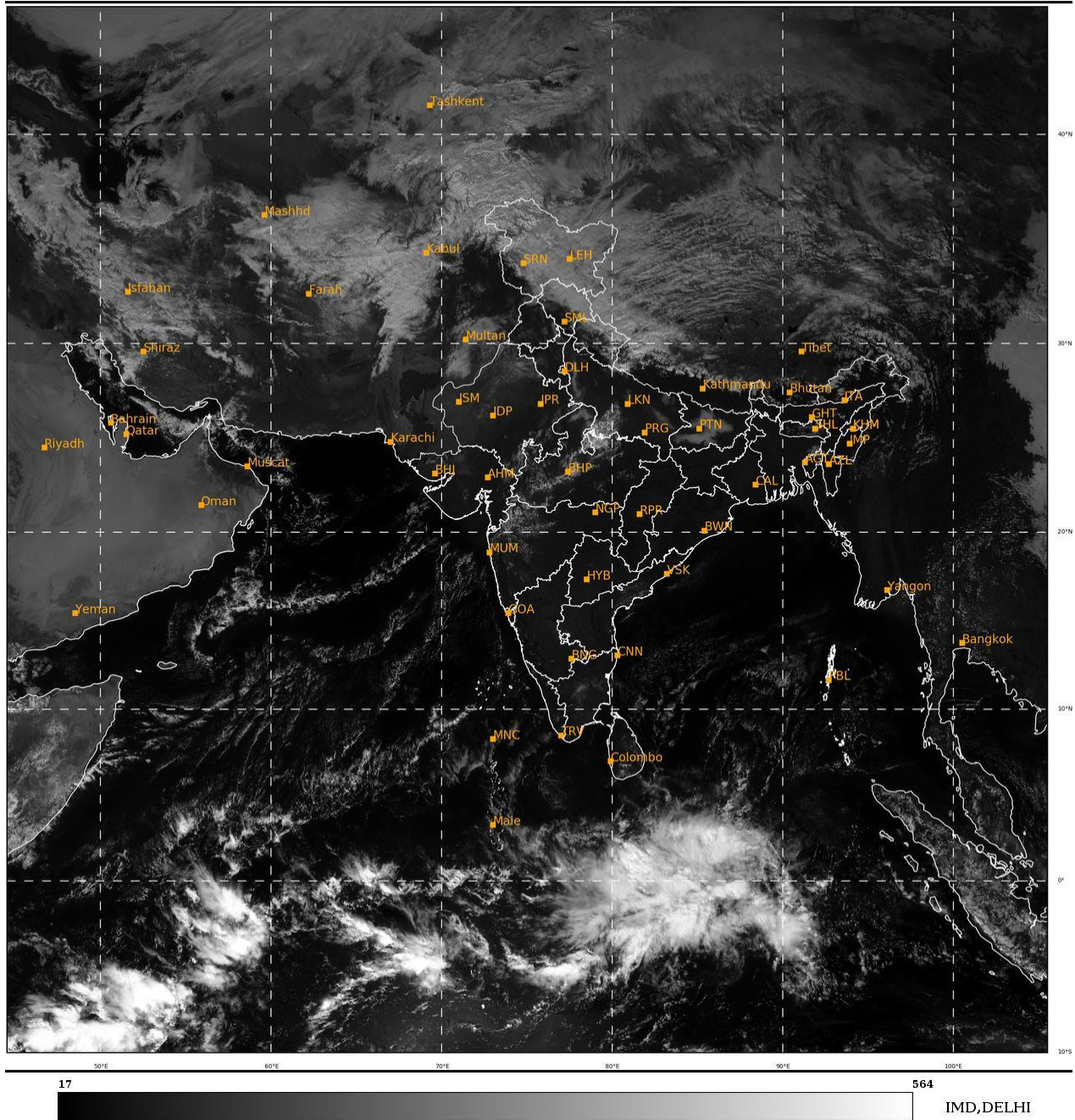
- Sericulture: Suspend irrigation for next 15 days. Cocoons harvested if not sold/utilized, should be kept away from rodents and pests attack.
- Horticulture: Refill the pits for spring plantations after mixing FYM and chloropyriphos to control termites. Sterilize the pits prepared for guava plantation with formalin in wilt affected areas. Apply irrigation whenever necessary. Spray dinocap @ 0.5ml/lit during clear weather to check powdery mildew in mango prevalent due to present RH. Spray copper oxychloride @ 3gm/lit during clear weather in citrus to check dieback, gummosis in citrus canker prevalent due to present temperature. Drench guava basin with carbendazim @ 1gm/lit in citrus.
- Mushroom culture: Proper ventilation should be maintain in the cropping room. Spray chlorothalonil @ 0.5% if competitor moulds are observed. Maintain proper hygienic conditions in and around growing rooms. Maintain 160C to 180C temperature during fruiting and 23°C to 24°C during spawn run. Maintain 85%-90% relative humidity inside the growing room.
- Apiculture: Keep colonies at a place where sunlight is properly received. Maintain bee strength by giving sealed brood to weak colonies, or unite them. Protect colonies from rainfall.
- Poultry: Maintain good source of light and heat in poultry houses. Cover the poultry shed with gunny bags in order to protect the birds from cold weather. Well-insulated windows can act as a sun trap during winters. Avoid hurdling of chicks. Proper hygiene should be maintained. Adequate clean drinking water should be available all the time. Provide starter feed for first 14 days and provide finisher feed from 15th day till sale. Give vaccination against IPD & Gumbroo disease to 7 & 14 days chick.
- Live stock: Use dry gunny bags as bedding material for protection against low night temperatures. Do not allow animals to leave khurli early in morning directly to open area. To avoid cracking or fissuring of teats in cold dry weather, clean the teats with warm water and apply ghee or butter after every milking. Give special care to young calves as they are more sensitive to pneumonia. Protect the pregnant and milch animals from cold and feed them mineral mixture regularly. Provide hay of green forage like stala, lobia, maize, jowar and bajra etc. with kadbi and other green grasses to the milch animals in order to enhance milk production and also to prevent from bloat (aafara).

- Fisheries: Add regular supplementary feed on daily basis @ 2-3 % of total estimated fish biomass present in the pond In case of appearance of algal bloom in the fish pond, farmers should stop the addition of manure/fertilizer/supplementary feed in the fish pond for some days. Remove algal bloom by the addition of fresh water in to the fish pond.

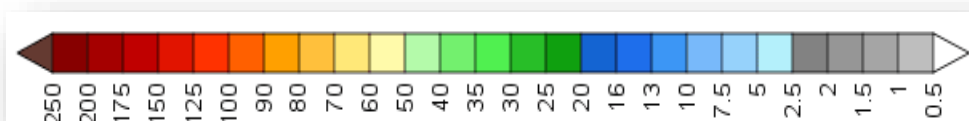
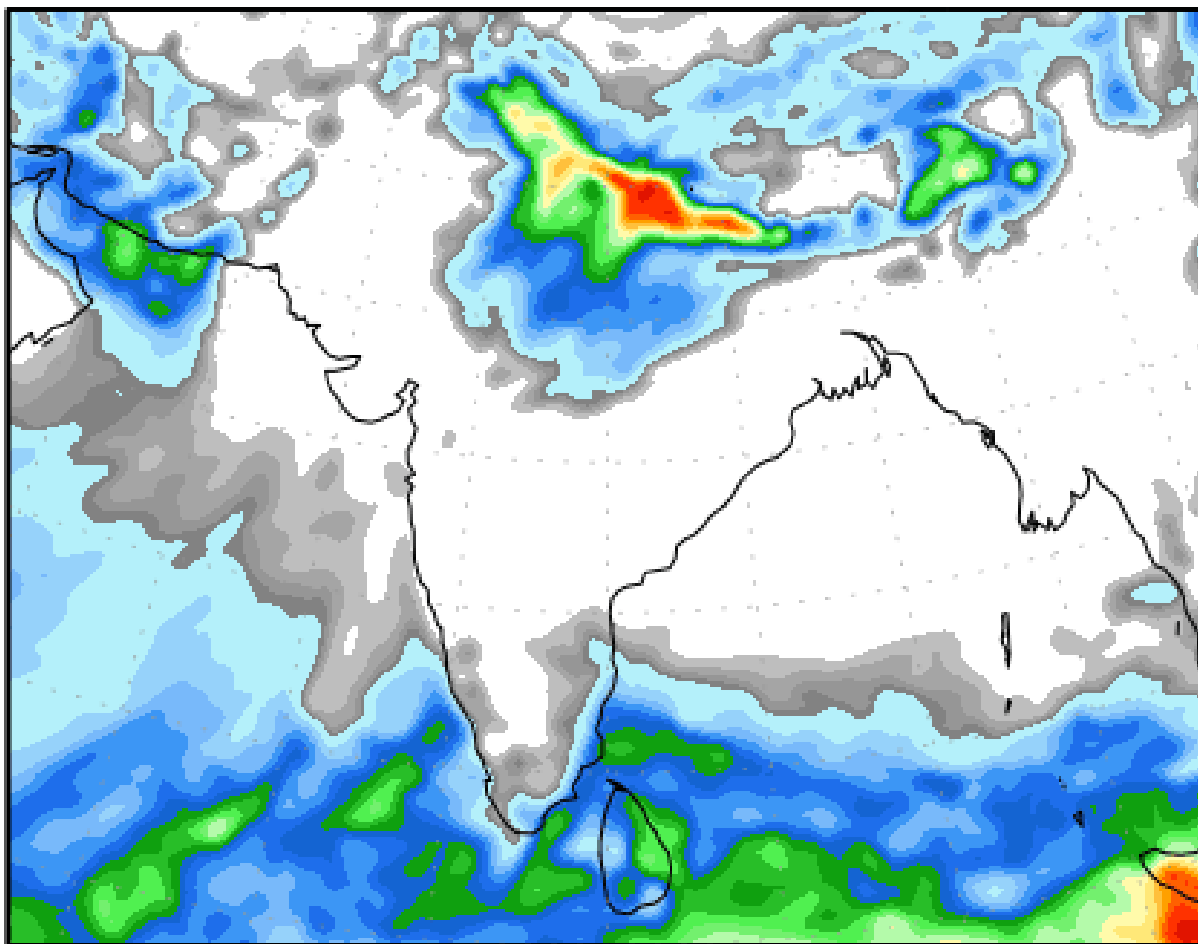


SAT : INSAT-3D IMG  
Visible Count 0.65 um  
L1C Mercator

14-01-2020/(0800 to 0827) GMT  
14-01-2020/(1330 to 1357) IST



**Figure: 1. Latest available satellite picture as on 14 January 2020 at 1357 Hrs (IST).  
(Source: IMD).**



**Figure:2. Precipitation forecast for 14 Jan to 22 Jan 2020 (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.*