

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

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

### **Daily Crop Weather Information as on 15 March 2021**

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

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

- A Western Disturbance as a trough in mid & upper tropospheric westerlies with its axis at 5.8 km above mean sea level runs roughly along longitude 65°E to the north of latitude 26°N. Isolated rainfall is likely over the Western Himalayan region during next 5 days except over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad where scattered to fairly widespread rainfall is likely on 16th & 17th March, 2021. Isolated Trace to very light rainfall is likely over the plains of Northwest India during 18th-19th March, 2021 and isolated thunderstorm with lightning over the region on 18th March 2021.
- Under the influence of interaction between mid-level westerlies and lower level easterlies thunderstorm/hailstorm activity is likely over Madhya Pradesh, Madhya Maharashtra, Marathwada, Vidarbha during 18th-20th March, 2021.
- A trough in westerlies in lower & middle tropospheric levels with its axis at 2.1 km above mean sea level runs roughly along longitude 90°E to the north of latitude 26°N. Fairly widespread rainfall is very likely over Arunachal Pradesh during next 3 days and decrease thereafter; isolated rain/thundershower is also likely over Arunachal Pradesh and Assam & Meghalaya during 15th-19th March 2021.
- No heat wave very likely over the country during next 5 days except over Saurashtra & Kutch where heat wave conditions are likely 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 of yesterday to 0830 hours IST of today): at a few places over Jammu & Kashmir, Gilgit-Baltistan, Ladakh & Muzaffarabad and Arunachal Pradesh and Sub-Himalayan West Bengal & Sikkim.
- Thunderstorm observed (0830 hours IST of yesterday to 0830 hours IST of today): at isolated places over Arunachal Pradesh and Assam & Meghalaya.

- Maximum Temperature Departures as on 14-03-2021: Maximum temperatures were appreciably above normal (3.1°C to 5.0°C) at most places over Himachal Pradesh; at many places over Uttarakhand and at isolated places over West Madhya Pradesh; above normal (1.6°C to 3.0°C) at most places over Punjab, West Rajasthan and Gujarat; at many places over Haryana, Chandigarh & Delhi, East Rajasthan and Konkan & Goa; at a few places over West Uttar Pradesh, Coastal Karnataka and Assam & Meghalaya and at isolated places over Gangetic West Bengal and Tamilnadu, Puducherry and Karaikal. They were below normal (-1.6°C to -3.0°C) at many places over Arunachal Pradesh and at a few places over Sub-Himalayan West Bengal & Sikkim and Andaman & Nicobar Islands and near normal over rest parts of the country. Yesterday, the highest maximum temperature of 39.0°C was reported at Nanded (Marathwada) over the country.
- Minimum Temperature Departures as on 15-03-2021: Minimum temperatures are markedly above normal (5.1°C or more) at isolated places over West Rajasthan; appreciably above normal (3.1°C to 5.0°C) at a few places over Andaman & Nicobar Islands, Saurashtra & Kutch and West Uttar Pradesh and at isolated places over West Madhya Pradesh; above normal (1.6°C to 3.0°C) at most places over Punjab and Sub-Himalayan West Bengal & Sikkim; at many places over Himachal Pradesh, Uttarakhand, Bihar, Assam & Meghalaya and Gujarat Region; at a few places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Haryana, Chandigarh & Delhi, Odisha, Konkan & Goa and Vidarbha and at isolated places over East Rajasthan and Kerala & Mahe. They are appreciably below normal (-3.1°C to -5.0°C) at a few places over South Interior Karnataka and Rayalseema and at isolated places over East Madhya Pradesh; below normal (-1.6°C to -3.0°C) at many places over North Interior Karnataka and at a few places over Telangana, Tamil Nadu, Puducherry & Karaikal and Coastal Andhra Pradesh & Yanam and near normal over rest parts of the country. Today, the lowest minimum temperature of 10.0°C is reported at Pantnagar (Uttarakhand) over the plains of the country.

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

- 15 March (Day 1): Thunderstorm with lightning & gusty winds (speed reaching 40-50 kmph) very likely at isolated places over Sub-Himalayan West Bengal & Sikkim and with lightning at isolated places over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Kerala & Mahe. Heat Wave conditions very likely at isolated places over Saurashtra & Kutch.
- 16 March (Day 2): Thunderstorm with lightning & gusty winds (speed reaching 40-50 kmph) very likely at isolated places over Sub-Himalayan West Bengal &

Sikkim and with lightning at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Kerala & Mahe. Heat Wave conditions very likely at isolated places over Saurashtra & Kutch.

- 17 March (Day 3): Thunderstorm with lightning very likely at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh and Uttarakhand.
- 18 March (Day 4): Thunderstorm with lightning & gusty winds (speed reaching 40-50 kmph) likely at isolated places over Madhya Pradesh, Vidarbha and Chhattisgarh and with lightning at isolated places over Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, West Uttar Pradesh, Rajasthan, Madhya Maharashtra and Marathwada.
- 19 March (Day 5): Thunderstorm with lightning, hail & gusty winds (speed reaching 40-50 kmph) likely at isolated places over Madhya Pradesh, Vidarbha and Chhattisgarh and with lightning at isolated places over Uttarakhand, East Rajasthan, Madhya Maharashtra and Marathwada.
- The weather outlook for seven days i.e., 15 Mar to 23 March 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 8.8 to 10.4 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 32.8 to 39.3 and 13.7 to 18.9 oC respectively. Wind velocity ranged from 2.9 to 3.9 km and wind was blowing from south westerly Direction.

#### **Contingency measure:**

- General advisory: There is forecast for increase in temperature, hence protect animals from heat by covering roof of the shed with insulating materials such as paddy straw, dry coconut leaves and make arrangement for sprinkle cold water on the roof of shed during afternoon time. Use wet gunny bags as side curtains to protect animals from direct hot winds
- SMS: To protect the newly planted coconut and arecanut palm from sun

scorching, provide shed also to reduce the evaporation rate in newly planted mango, cashewnut, sapota etc. fruit crop orchard, use straw mulch

- **Mango:**Due to forecast for rise in temperature and decrease in humidity during next five days, to minimize the pre-mature fruit drop also reduce the sun scalding of fruits of mango, as per availability of water, apply 100 liter /tree at weekly or 150 to 200 liter/ tree at 15 days interval from pea to arecanut fruit size also use straw mulch. For reducing fruit drop and quality improvement of mango fruits, spray 1 % Potassium nitrate at pea, marble and arecanut size of mango fruits.The pre-harvest bagging with newspaper bag of size 25 X 20 cm at marble to egg stage as per recommendation of D.B.S.K.K.V. helps to protect the fruits from sun scorching, reduce fruit drop, increases the fruit weight, pulp weight, controls attack of fruit fly on fruits and produces spotless fruits of mango.There is possibility for incidence of fruit fly on mango fruits. Collect and destroy all fallen fruits and install ?Rakshak fruit fly trap? developed by University @ 2 traps per acre.Due to forecast for increase in temperature and decrease in humidity, provide irrigation to newly planted mango orchard @ 30 liters of water twice in week (1 years old), twice in 15 days interval (2 years old) and twice in month (3 years old).also use straw mulch
- **Cashewnut:**Due to forecast for increase in temperature and decrease in humidity, apply 150 to 200 liter of water to nut bearing trees and to newly planted cashewnut orchard @ 15 liters of water at 15 days intervals also use straw mulch.There is possibility for incidence of cashew apple and nut borer, if incidence is noticed spray Profenophos 50%EC @ 15 ml per 10 liter of water.
- **Lablab bean:**Due to forecast for rise in temperature and decrease in humidity, provide irrigation to lablab bean crop which is in flowering or pod filling stage.Harvest mature lablab bean pod and dry it for 4 to 5 days in sunlight and then follow threshing or harvest the pods along with plant and dry for 3 to 4 days in sunlight. After drying follow threshing of pods. Stored dried grain at dry and safe place.
- **Groundnut:**Due to forecast for rise in temperature and decrease in humidity may leads to accelerate evaporation rate, hence provide irrigation to the groundnut crop at 7-8 days interval.
- **Coconut:**Due to forecast for rise in temperature and decrease in humidity, provide irrigation to first four years old coconut orchard at 5 to 6 days interval and for above four years old orchard provide irrigation at 7 to 8 days interval.Provide shed to newly planted coconut orchard
- **Arecanut:**To protect the stem of arecanut from sunscorching, cover the stem with

grasses or branches of arecanut palm. Due to forecast for rise in temperature and decrease in humidity, provide irrigation to arecanut orchard at 5-6 days interval.

- Water melon: Provide irrigation to water melon crops at 3-4 days interval regularly as to protect fruits from cracking. Cover the water melon fruits with paddy straw or grasses to protect fruits from sunlight. There is possibility for incidence of fruit fly in watermelon, cucurbitaceous crop. For effective control of fruit fly, install cue lure ?Rakshak? trap @ 2 nos. per acre at the time of initiation of flowering.
- Brinjal, Chilli, Tomato: Due to forecast for rise in temperature and decrease in humidity, provide irrigation to vegetable crop at 4-5 days interval.
- Okra: Apply 2nd split dose of nitrogen @ 700 gms urea per guntha to okra crop at one month after sowing. Use yellow sticky cards in field to attract the sucking pests.
- Milch animal: Provide clean, hygienic and plenty amount of drinking water to farm animals. To reduce the stress of heat in farm animals, provide roughages by mixing with solution of 1% jaggery and 0.5% salt separately. To protect animals from heat, sprinkle cold water on animals during the afternoon, it will help to maintain the body temperature. There is forecast for increase in temperature, hence protect animals from heat by covering roof of the shed with insulating materials such as paddy straw, dry coconut leaves and make arrangement for sprinkle cold water on the roof of shed during afternoon time. Use wet gunny bags as side curtains to protect animals from direct hot winds. Clean the water tank once in 15 days. and apply lime inside the tank which help to prevent the algae development and help to supply clean water enriched with calcium.
- Poultry: There is possibility for increase in temperature during day hence protect poultry birds from heat. In poultry shed, increase the water pot and provide adequate and clean water for drinking. There is forecast for increase in temperature, hence protect poultry birds from heat by covering roof of the shed with insulating materials such as paddy straw, dry coconut leaves and make arrangement for sprinkle cold water on the roof of shed during afternoon time. Use wet gunny bags as side curtains to protect poultry birds from direct hot winds.



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

15-03-2021/(0800 to 0827) GMT  
15-03-2021/(1330 to 1357) IST

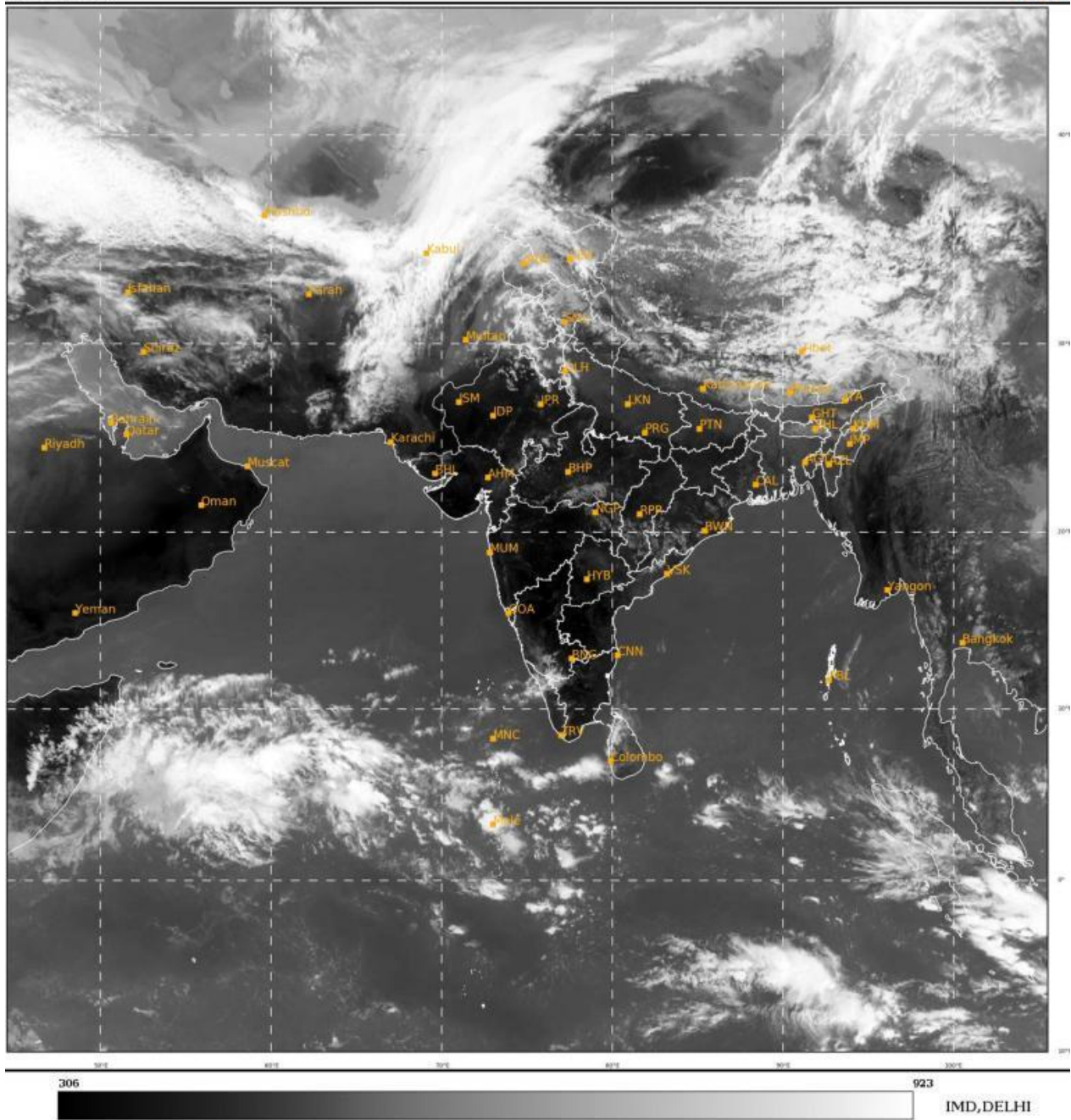
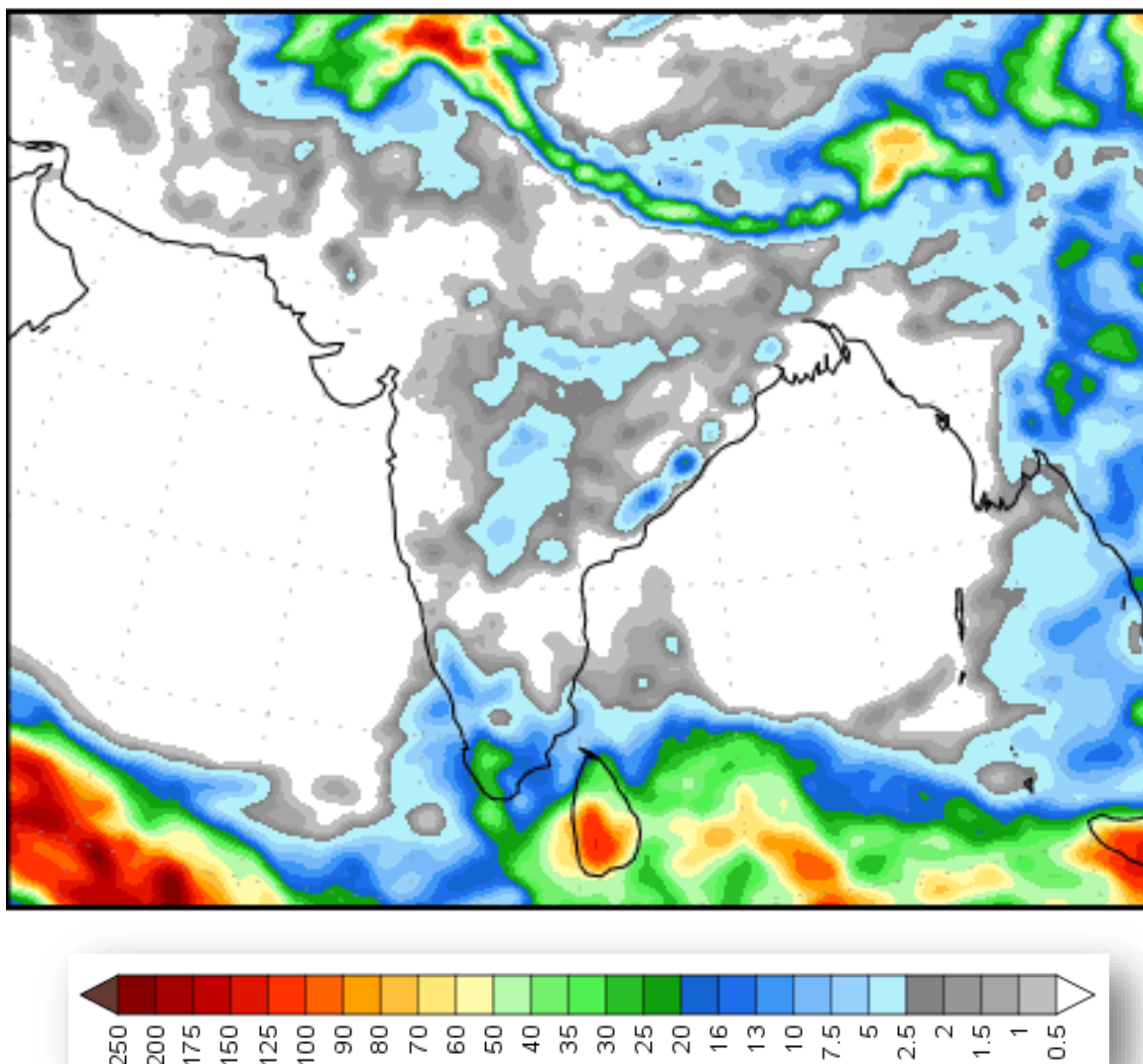


Figure: 1. Latest available satellite picture as on 15 March 2021 at 1357 Hrs (IST). (Source: IMD).



**Figure:2. Precipitation forecast for 15 to 23 March 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.*