

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

**Daily Crop Weather Information as on 14 April 2020**

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

**Significant Weather Features (IMD)**

- The present Western Disturbance as a trough in mid-tropospheric levels to the west of Jammu & Kashmir and an induced cyclonic circulation over central Pakistan & neighbourhood are likely to cause scattered to fairly widespread rain/thundershowers over Western Himalayan region (Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad, Himachal Pradesh and Uttarakhand) on 14th & 15th April. Isolated thunderstorms/hailstorms and gusty winds are also likely over Western Himalayan region during next 24 hours. Generally cloudy skies and isolated rain/thundershower are also likely over Punjab, Haryana & Chandigarh, north Rajasthan and West Uttar Pradesh during next 24 hours.
- A fresh Western Disturbance is likely to affect Western Himalayan Region and adjoining northern plains from 17th April. Fairly widespread rain/thundershower are likely over Western Himalayan Region and scattered rain/thundershower over northern plains on 17th & 18th April. This could also result in isolated thunderstorms/hailstorms and gusty winds over these areas during the same period.
- Due to the convergence of strong moist winds from the Bay of Bengal, eastern states (especially West Bengal & Sikkim and east Bihar) and Northeast India are very likely to experience fairly widespread to widespread rainfall with isolated heavy falls from 15th April for the subsequent 5-6 days. Thundersqualls & hailstorms are also very likely over these regions on 15th & 16th April.
- Heat Wave conditions are likely to persist over Gujarat state during on 14th & 15th April.
- Maximum temperatures in the range of 41-43°C are likely to prevail over parts of Telangana, Rayalaseema and North Interior Karnataka during next 3 days. Isolated thunderstorm with lightning & gusty winds are likely over parts of Andhra Pradesh, Telangana, Kerala, Interior Karnataka, south Madhya Maharashtra, Marathawada and Vidarbha during next 5 days. Isolated hailstorms are also likely over Telangana on 14th, 17th & 18th and over north Coastal Andhra Pradesh on 17th April.

- 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 isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad, Uttarakhand, Konkan & Goa, Madhya Maharashtra, Odisha, Marathwada, Chhattisgarh, Telangana, North Interior Karnataka, Kerala & Mahe and Andaman & Nicobar Islands.
- Yesterday, Heat wave to severe heat wave conditions were observed in isolated pockets over Saurashtra & Kutch and heat wave conditions in isolated places over Gujarat Region.
- Thunderstorm observed (from 0830 hours IST of yesterday to 0830 hours IST of today): at isolated places over North Interior Karnataka, Chhattisgarh, West Madhya Pradesh and Madhya Maharashtra.
- Maximum Temperature Departures as on 13-04-2020: Maximum temperatures were markedly above normal (5.0°C or more) at a few places over Arunachal Pradesh and Saurashtra & Kutch; appreciably above normal (3.1°C to 5.0°C) at many places over Himachal Pradesh and Gujarat region; at a few places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad and Assam & Meghalaya; at isolated places over Uttarakhand, West Madhya Pradesh, Odisha and Vidarbha; above normal (1.6°C to 3.0°C) at most places over Nagaland, Manipur, Mizoram & Tripura, Rajasthan and Lakshadweep; at many places over Punjab and Haryana, Chandigarh & Delhi; at a few places over Madhya Maharashtra, Marathwada and Kerala and at isolated places over Gangetic West Bengal, East Madhya Pradesh, Chhattisgarh, Konkan & Goa, Rayalaseema, Coastal Andhra Pradesh & Yanam and Tamilnadu, Puducherry & Karaikal. They were appreciably below normal (-3.1°C to -5.0°C) at isolated places over Sub-Himalayan West Bengal & Sikkim, Bihar and Andaman & Nicobar Islands and near normal over rest parts of the country. Yesterday, the highest maximum temperature of 43.8°C was reported at Surendranagar (Saurashtra & Kutch) and Akola (Vidarbha).
- Minimum Temperature Departures as on 14-04-2020: Minimum temperatures are markedly above normal (5.1°C or more) at many places over West Rajasthan; at isolated places over East Rajasthan; appreciably above normal (3.1°C to 5.0°C) at most places over Uttarakhand; at many places over Himachal Pradesh; at a few places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad, Haryana, Chandigarh & Delhi and Saurashtra & Kutch; at isolated places over Uttar

Pradesh, West Madhya Pradesh and Andaman & Nicobar Islands; above normal (1.6°C to 3.0°C) at many places over Punjab and Gujarat; at a few places over Madhya Maharashtra, Konkan & Goa, East Madhya Pradesh and West Bengal & Sikkim; at isolated places over Bihar, Odisha, Assam & Meghalaya and Kerala & Mahe. They are below normal (-1.6°C to -3.0°C) at many places over Telangana and Rayalaseema; at a few places over South Interior Karnataka and Tamil Nadu, Puducherry & Karaikal and near normal over rest parts of the country. The lowest minimum temperature of 19.0°C reported at Fursatganj (East Uttar Pradesh) over plains of the country.

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

- 14 April (Day 1): Thunderstorm accompanied with lightning, hail & gusty winds (speed reaching 30-40 kmph) at isolated places very likely over Jammu, Kashmir, Ladakh, Gilgit, Baltistan, Muzaffarabad, Himachal Pradesh, Uttarakhand, Telangana and Sub-Himalayan West Bengal & Sikkim; with lightning & gusty winds (speed reaching 30-40 kmph) at isolated places over Madhya Maharashtra, Marathwada, East Madhya Pradesh, Vidarbha, south Chhattisgarh, Gangetic West Bengal, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura and with lightning at isolated places over Odisha, Jharkhand and Bihar. Dust raising winds very likely over Rajasthan. Heat Wave conditions very likely in some parts with severe heat wave conditions in isolated pockets over Saurashtra & Kutch and in isolated pockets over Gujarat region.
- 15 April (Day 2): Thunderstorm accompanied with lightning, hail & squall (speed reaching 50-60 kmph) very likely at isolated places over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura. Thunderstorm accompanied with lightning, hail & gusty winds (speed reaching 30-40 kmph) very likely at isolated places over Sub-Himalayan West Bengal & Sikkim; with lightning & gusty winds (speed reaching 30-40 kmph) at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan, Muzaffarabad, Arunachal Pradesh, Odisha and Marathawada and with lightning over Vidarbha, Chhattisgarh, Gangetic West Bengal, Himachal Pradesh, Bihar and Jharkhand. Heat Wave conditions very likely in isolated pockets over Saurashtra & Kutch.
- 16 April (Day 3): Thunderstorm accompanied with lightning, hail & squall (speed reaching 40-50 kmph) very likely at isolated places over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura. Thunderstorm accompanied with lightning, hail & gusty winds (speed reaching 30-40 kmph) at isolated places likely over Sub-Himalayan West Bengal & Sikkim; with lightning & gusty winds

(speed reaching 30-40 kmph) over Vidarbha, Arunachal Pradesh and Bihar and with lightning over north Coastal Andhra Pradesh, Gangetic West Bengal, Odisha and Jharkhand. Heavy rainfall likely at isolated places over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.

- 17 April (Day 4): Thunderstorm accompanied with lightning, hail & gusty winds (speed reaching 30-40 kmph) likely at isolated places over north Coastal Andhra Pradesh, Telangana, Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad, Himachal Pradesh and Uttarakhand; with lightning & gusty winds (speed reaching 40-50 kmph) at isolated places over Odisha; with lightning & gusty winds (speed reaching 30-40 kmph) at isolated places over Punjab, Madhya Maharashtra, Marathwada, Chhattisgarh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh and Bihar and with lightning at isolated places over Haryana, Chandigarh & Delhi, Gangetic West Bengal, Madhya Pradesh, Jharkhand, Karnataka, Rayalaseema and Kerala & Mahe. Squally weather (wind speed 45-55 kmph) likely to prevail over northwest Bay of Bengal off West Bengal-Odisha coasts. Fishermen are advised not to venture into these areas.
- 18 April (Day 5): Thunderstorm accompanied with lightning & squall (speed reaching 45-55 kmph) likely at isolated places over West Bengal & Sikkim; with lightning & squall (speed reaching 40-50 kmph) over Bihar. Thunderstorm accompanied with lightning, hail & gusty winds (speed reaching 30-40 kmph) likely at isolated places over Telangana, Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad, Himachal Pradesh and Uttarakhand; with lightning & gusty winds (speed reaching 30-40 kmph) at isolated places over Madhya Maharashtra, Marathwada, Chhattisgarh, Odisha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Arunachal Pradesh, Jharkhand, Punjab, Haryana, Chandigarh & Delhi, north Coastal Andhra Pradesh, North Interior Karnataka and Kerala & Mahe and with lightning at isolated places over Madhya Pradesh, Coastal & South Interior Karnataka, Rayalaseema and Tamilnadu, Puducherry & Karaikal. Heavy rainfall likely at isolated places over Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya and Arunachal Pradesh.
- The weather outlook for seven days i.e., 14 to 22 April 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)

### **Maharashtra**

#### **Weather condition:**

Atmospheric condition was clear during morning hours around Dapoli during last week. Therefore 8.9 to 10.6 hours of bright sunshine 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 32.0 to 35.5 and 17.0 to 20.0 oC, respectively. Wind velocity ranged from 3.8 to 4.6 kmph and wind was blowing from westerly direction.

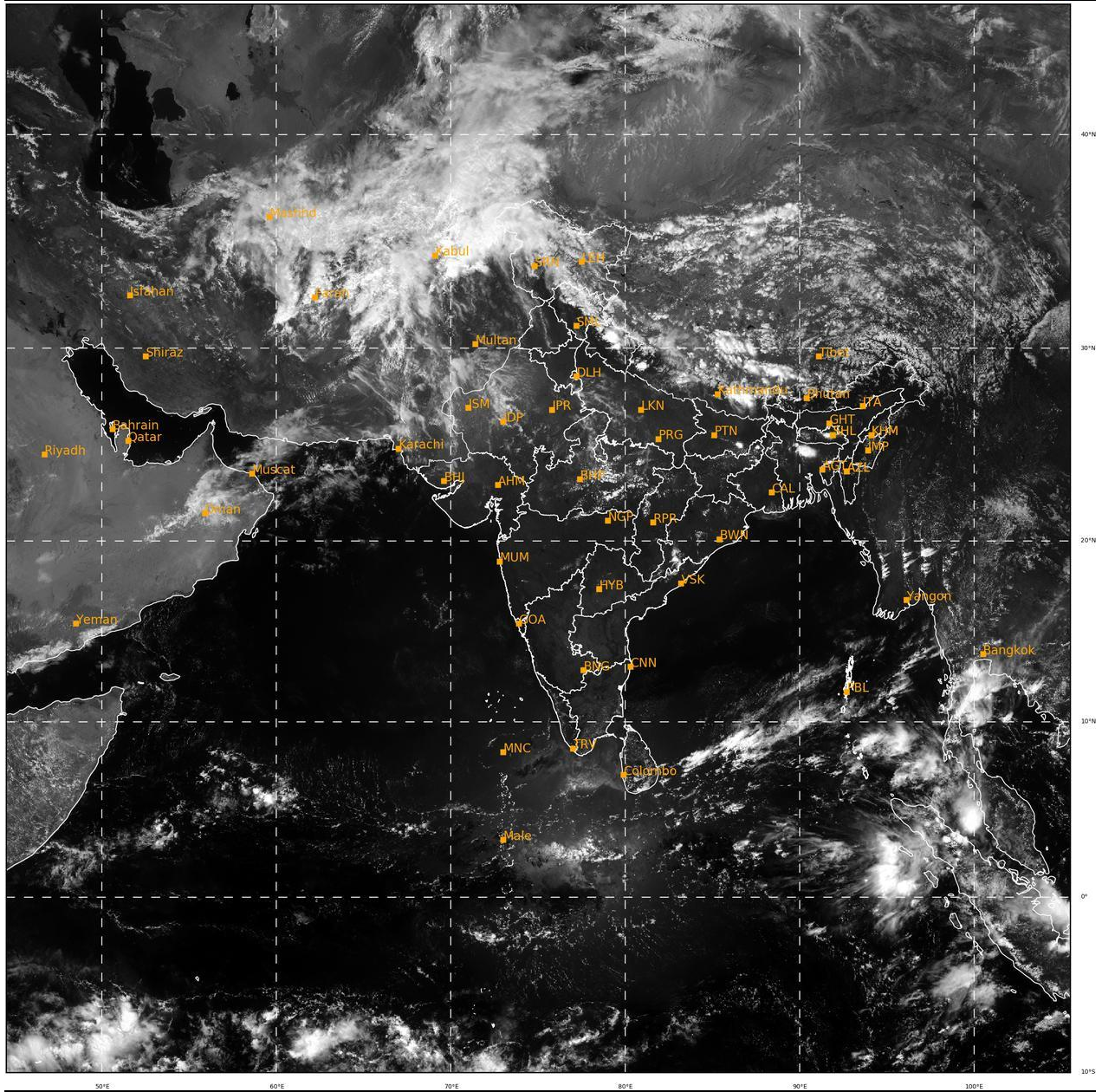
#### **Contingency measure:**

- Groundnut: Due to forecast for increase in temperature and decrease in humidity, provide irrigation to groundnut crop at 8 to 10 days interval.
- Mango: If mango fruits are ready for harvesting, harvest the mature fruits before 10 hours in the morning and after 16 hours in the evening with the help on Nutan mango harvester at 80 to 85% maturity. Keep the harvested fruits in shade to prevent spongy tissue disease and from heat. Withhold irrigation one month before fruit are ready for harvesting. Do not spray any insecticides/fungicides 8 days before harvesting of mango fruits. To prevent incidence of post harvest diseases on fruits, place the fruits in hot water of 52°C for 10 minutes and then keep for ripening. Use C.F.B. (corrugated fiber box) for packing developed by B. S. Konkan Krishi Vidyapeeth, Dapoli. Transport of harvested fruits should be done preferably during night hours. To protect the mango fruits from the incidence of fruit fly, install Rakshak fruit fly trap. developed by University @ 4 traps per hectare. Collect and destroy fallen fruits and keep orchard clean. Due to variation in temperature and humidity, there is possibility of pre-mature fruit drop which are in egg size stage, to minimize the pre-mature fruit drop of mango, apply 150 to 200 liter of water per tree at 15 days interval. To protect the mango tree from increasing temperature, apply bordopaste to the base of stem. 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).
- Cashewnut: If nuts are ready for harvesting, harvest the matured nuts and sun dry for 7 to 8 days to bring down moisture content and then stored in dry places. Prepare different processed product from cashew apple as per recommended by Dr. Balasaheb Sawant Konkan Krishi Vidyapeeth, Dapoli. To protect the cashewnut tree from increasing temperature, apply bordopaste to the base of stem. Due to forecast for increase in temperature and decrease in humidity,

provide irrigation to newly planted cashew orchard @ 15 liters of water once in week. also use straw or polythene mulch in cashew orchard to reduce evaporation losses. There is possibility of incidence of Cashew Stem and Root Borer (CSRB) in Cashewnut crop. If the incidence is noticed, remove the grubs from the holes with the help of 15 mm chisel and apply Chloropyriphos 20 EC @ 5 ml per liter of water on the stem (swabbing)

- Coconut: Due to forecast for increase in temperature and decrease in humidity, provide irrigation to coconut orchard at 5-6 days interval also use straw mulch to reduce evaporation losses. There is possibility for incidence of eriophyid mite on coconut, to control the incidence of mites on coconut, apply neem-based insecticide neemazal 5% @ 7.5 ml be mixed in equal quantity of water through root feeding. Harvesting is avoided at least 45 days after treatment. In addition to this spray neem-based insecticide (neemazal) 1% @4 ml per liter of water on bunch of nuts. Collect and destroy all infected inflorescence and nuts before spraying
- Arecanut: Due to forecast for increase in temperature and decrease in humidity, provide irrigation to arecanut orchard at 4-5 days interval also use straw mulch to reduce evaporation losses. To protect the stem of arecanut from sunburn from south direction, cover the stem with grasses or branches of arecanut palm
- Milch animals: There is possibility of increase in temperature hence Provide clean, hygienic and plenty amount of drinking water to farm animals. To protect animals from heat, sprinkle cold water on animals during the afternoon, it will help to maintain the body temperature. To reduce the stress of heat in farm animals, provide roughages by mixing with solution of 1% gaggery and 0.5% salt separately. 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. Carryout out vaccination against Haemorrhagic Septecemia (H.S.) disease in farm animals with consultation of veterinary officer
- Poultry: There is possibility of increase in temperature, hence in poultry shed, increase the water pot and provide adequate and clean water for drinking. Also, feed should be given in the morning or evening hours. 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



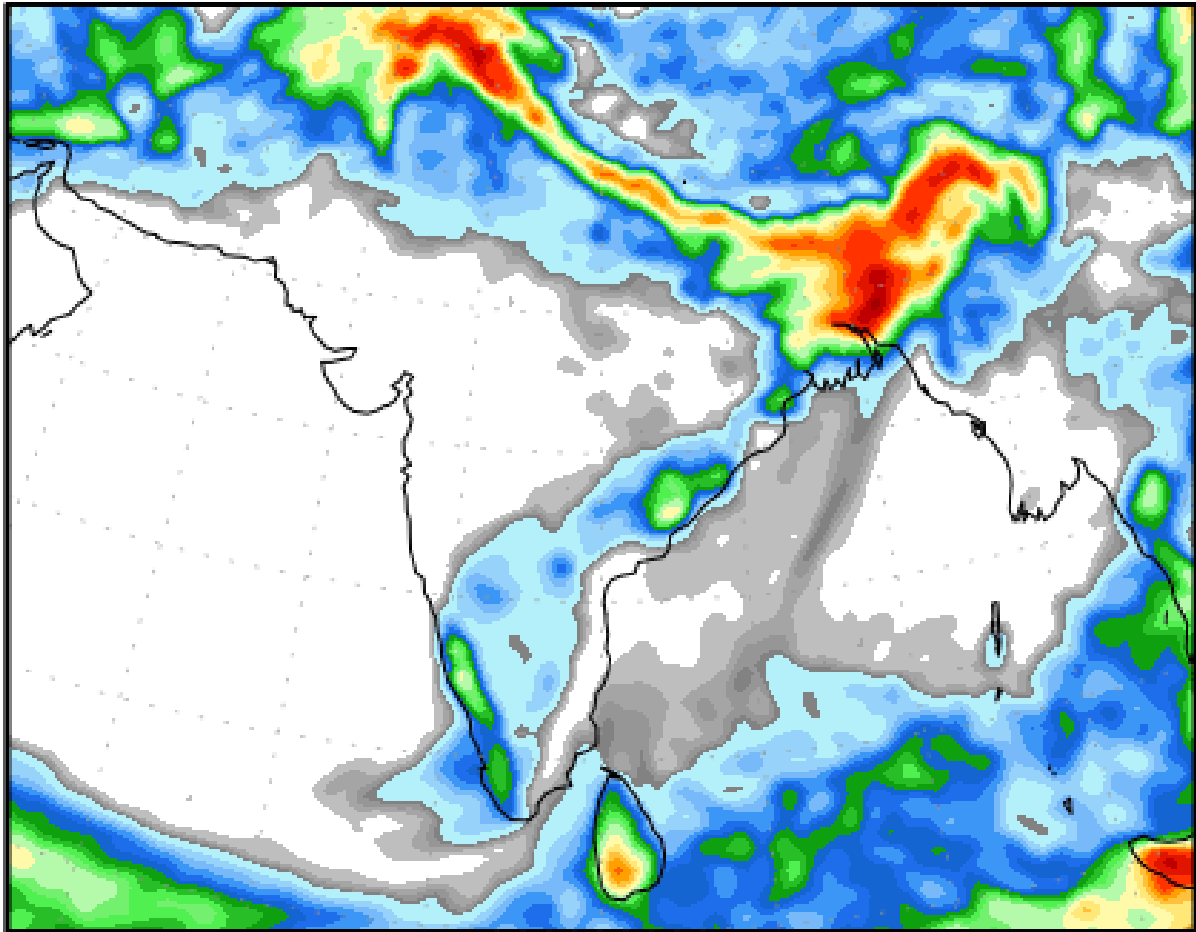
24

812

IMD, DELHI

Figure: 1. Latest available satellite picture as on 14 April 2020 at 1257 Hrs (IST). (Source: IMD).





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