

All India Coordinated Research Project on Agrometeorology

CRIDA, Santoshnagar, Hyderabad – 500 059

Daily Crop Weather Information as on 28 February 2020

Attention: Rajiv Maheshwari, OSD, ICAR

Significant Weather Features (IMD)

- The Western Disturbance now seen as a cyclonic circulation at 5.8 km above mean sea level over northwest Afghanistan & neighborhood with the trough aloft with its axis at 7.6 km above mean sea level roughly along Long. 64°E to the north of Lat. 28°N. Under its influence, an induced cyclonic circulation has formed over central Pakistan & adjoining northwest Rajasthan extending up to 1.5 km above mean sea level. It is very likely to cause moderate fairly widespread to widespread precipitation with isolated thunderstorm accompanied by lightning & hail over the western Himalayan region on 28th & 29th February. It is also likely to cause isolated heavy rain/snow over Jammu, Kashmir, Ladakh, Gilgit-Baltistan on 28th & 29th February and over Himachal Pradesh on 29th February. Scattered to fairly widespread rainfall with isolated thunderstorm accompanied with lightning, hail & gusty winds (speed reaching 30-40 kmph) very likely over adjoining plains on 28th & 29th February.
- Due to convergence of lower-level easterlies & westerlies isolated to scattered rainfall with isolated thunderstorm/hailstorm likely over Madhya Pradesh, Vidarbha, Chhattisgarh on 29th February & 01st March.
- 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, Nagaland, Manipur, Mizoram & Tripura, and Coastal Andhra Pradesh & Yanam.
- Yesterday, heatwave conditions were observed at isolated places over Konkan.
- Dense fog observed (at 0830 hours IST of today) in isolated parts over Odisha and Moderate fog in isolated parts over Bihar. Visibility:- Chandbali and Bhubaneswar -50 m each; Gaya, Patna and Varanasi -200 m each.
- Maximum Temperature Departures as on 27-02-2020: Maximum temperatures were markedly above normal (5.1°C or more) at most places over Jammu, Kashmir & Ladakh; at many places over West Rajasthan and Konkan & Goa;

appreciably above normal (3.1°C to 5.0°C) at many places over East Rajasthan; at a few places over Saurashtra & Kutch; at isolated places Kerala & Mahe; above normal (1.6°C to 3.0°C) at most places over Gujarat Region and Lakshadweep; at many places over Himachal Pradesh; at a few places over Punjab, West Madhya Pradesh, and Coastal Karnataka; at isolated places over Haryana, Chandigarh & Delhi and Tamilnadu, Puducherry & Karaikal. They were appreciably below normal (-3.1°C to -5.0°C) at many places Bihar, Jharkhand and Odisha; at a few places over East Uttar Pradesh and Gangetic West Bengal; at isolated places Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura; below normal (-1.6°C to -3.0°C) at many places over Chhattisgarh; at a few places over East Madhya Pradesh, Telangana, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, and Andaman & Nicobar Islands; at isolated places over Vidarbha, Madhya Maharashtra, and Coastal Andhra Pradesh & Yanam and near normal over rest parts of the country. Yesterday, the highest maximum temperature of 38.4°C was recorded at Mumbai (Santacruz).

- Minimum Temperature Departures as on 28-02-2020: Minimum temperatures are markedly above normal (5.1°C or more) at most places over West Rajasthan; at many places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan; at a few places over Punjab, Haryana, Chandigarh & Delhi, and East Rajasthan; appreciably above normal (3.1°C to 5.0°C) at a few places over West Uttar Pradesh and West Madhya Pradesh; at isolated places over Himachal Pradesh and Saurashtra & Kutch; above normal (1.6°C to 3.0°C) at most places over Coastal Karnataka; at many places over Uttarakhand, Andaman & Nicobar Islands, and East Uttar Pradesh; at a few places over Coastal Andhra Pradesh & Yanam and Tamilnadu, Puducherry & Karaikal; at isolated places over Bihar, Sub-Himalayan West Bengal & Sikkim, Madhya Maharashtra, Konkan & Goa, South Interior Karnataka, and Kerala & Mahe. They are appreciably below normal (-3.1°C to -5.0°C) at many places over Odisha; at isolated places over Telangana; below normal (-1.6°C to -3.0°C) at most places over Chhattisgarh; at many places over Vidarbha; at isolated places over Gangetic West Bengal, Marathwada and East Madhya Pradesh and near normal over rest parts of the country. The lowest minimum temperature of 9.7°C recorded at Fursatganj (East Uttar Pradesh) over plains of the country

Weather Warning during the next 5 days (IMD)

- 28 February (Day 1): Thunderstorm accompanied with lightning, hail & gusty wind (speed reaching 30-40 kmph) very likely at isolated places over Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh, West Uttar Pradesh, and

Rajasthan and with lightning at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, and Kerala & Mahe. Heavy Rainfall/snowfall is very likely at isolated places over Jammu & Kashmir, Ladakh, and Gilgit-Baltistan. Dense fog is very likely in isolated parts over Bihar and Odisha.

- 29 February (Day 2): Thunderstorm accompanied by lightning & gusty wind (speed reaching 30-40 kmph) very likely at a few places with hailstorm at isolated places over Punjab and Haryana & Chandigarh. Thunderstorm accompanied with lightning, hail & gusty wind (speed reaching 30-40 kmph) at isolated places over Himachal Pradesh, Uttarakhand, West Uttar Pradesh, North East Rajasthan, West Madhya Pradesh, and west Vidarbha; with lightning & gusty wind (speed reaching 30- 40 kmph) at isolated places over East Uttar Pradesh and West Rajasthan and with lightning at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, East Madhya Pradesh, Marathawada, South Interior Karnataka and Kerala & Mahe. Heavy Rainfall/snowfall is very likely at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, and Himachal Pradesh.
- 01 March (Day 3): Thunderstorm accompanied with lightning, hail & gusty wind (speed reaching 30-40 kmph) very likely at isolated places over Uttarakhand, East Madhya Pradesh, and east Vidarbha; with gusty wind (speed reaching 30-40 kmph) at isolated places over Uttar Pradesh and with lightning at isolated places over West Madhya Pradesh, Sub-Himalayan West Bengal & Sikkim, Telangana, and Chhattisgarh.
- 02 March (Day 4): Thunderstorm accompanied with lightning likely at isolated places over Bihar, Jharkhand, Chhattisgarh, West Bengal & Sikkim, Odisha, Assam & Meghalaya, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, and north Coastal Andhra Pradesh & Yanam.
- 03 March (Day 5): Thunderstorm accompanied with lightning likely at isolated places over Bihar, Jharkhand, West Bengal & Sikkim, Assam & Meghalaya, Arunachal Pradesh and Nagaland, Manipur, Mizoram & Tripura.
- The weather outlook for seven days i.e., 28 Feb to 07 March 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)

Punjab

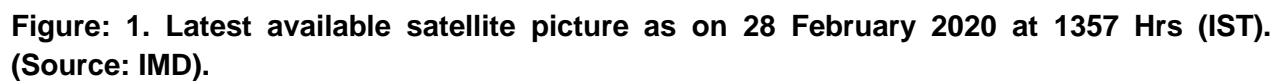
Weather condition:

The maximum temperature during the week ranged between 21.6-24.2 °C and minimum temperature ranged between 9.6-16.6 °C. The morning and evening relative humidity during the week varied between 69-97 and 48-59 %, respectively. The sunshine hours during the week ranged between 1.9-9.8 hrs/day. The evaporation rate was 2.0-4.0 mm day⁻¹. Daily average wind speed varied from 2.3-16.6 kmhr⁻¹.

Contingency measure:

- Partly cloudy weather with the possibility of rainfall during 28-29 February 2020. Weather parameters are likely to remain as follows: Maximum Temperature 23-26 °C, Minimum Temperature 12-15°C.
- FIELD CROPS: WHEAT (Grain formation): Regularly monitor the wheat crop for yellow rust to detect the initial foci of infection only spot application surrounding the infected area should be done with 0.1% Caviet/Opera/Tilt /Shine /Bumper/Markzole/Stilt/Compass. To produce karnal bunt free seed of wheat, give a single spray of 200 ml Tilt per acre using 200 liters of water at ear emergence stage. To control armyworm on wheat, spray the crop with 400 ml of Ekalux 25 EC using 80-100 liters of water. To control aphid on wheat spray 20 gm of Actara/ Taiyo 25WG using 80-100 liters of water per acre.
- OILSEEDS (Pod filling): For white rust of mustard, protect the crop by spraying Ridomil Gold @ 250g in 100 liters of water per acre. If needed, repeat the spray after 20 days interval. To control aphid on mustard, survey the crop and when the population of aphid reached ETL, spray the crop with Actara 25 WG @ 40gm or Metasystox 25 EC or Roger 30 EC @400 ml or Dursban/Coroban 20 EC @ 600 ml using 80-125 liters of water.
- SUNFLOWER: It is an optimum time for sunflower sowing, prefer sunflower hybrid PSH 569.
- VEGETABLES: Sowing of okra and cucurbits can be done during the period. It is also suitable to transplant the crops like tomato, brinjal, chili and plug tray/polythene raised nursery of cucurbits to the main field. If the late blight of potato is noticed in the field, spray the crop with systemic fungicides viz Ridomil Gold / CurzateM-8/ Secten/Melody Duo @700g or Equator Pro @200 ml or Revus @ 250 ml in 250-350 liters of water per acre.
- FRUIT PLANTS: It is a suitable time for the application of inorganic fertilizers to fruit plants as per recommendations. Apply fertilizers uniformly and mix it in soil

with light hoeing. Irrigate citrus plants before initiation of new growth during this period and also apply irrigation to ber and loquat laden with fruits. The protective covers erected to protect the plants against possible frost injury should be partially removed however, keep it intact during the period on sensitive plants such as papaya, banana, etc. To control citrus psylla and citrus leaf miner, spray 200 ml Crocodile/Confidor 17.8 SL (imidacloprid) or 160g Actara 25 WG (thiamethoxam) in 500 liters of water on spring flush before the opening of the flowers. To check foot rot of citrus (gummosis), drench the affected trees with 25 g Curzate M-8 in 10 liters of water per tree. Application of sodium hypochlorite (5%) @ 50ml per tree in 10 liters of water can be done on the main trunk and soil surface under the canopy of trees.



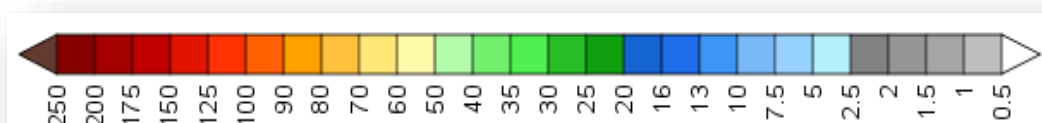
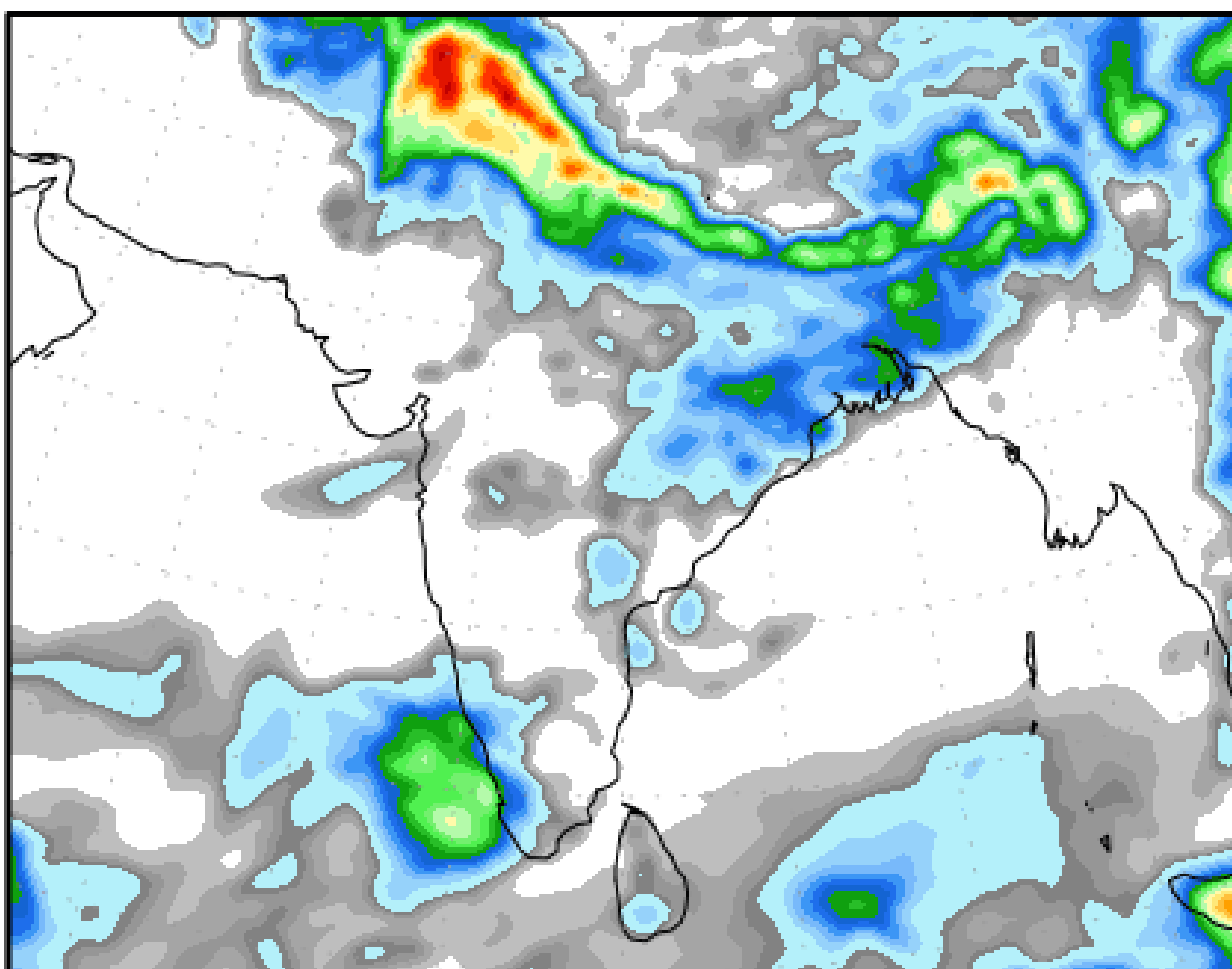


Figure:2. Precipitation forecast for 28 Feb to 07 March 2020 (Source: NOAA NCEP).

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