

All India Coordinated Research Project on Agrometeorology

CRIDA, Santoshnagar, Hyderabad – 500 059

Daily Crop Weather Information as on 31 May 2019

Attention: Rajiv Maheshwari, OSD, ICAR

Significant Weather Features (IMD)

- In association with further deepening of south westerlies and increase in rainfall over Andaman Islands, the southwest monsoon has further advanced into southernmost parts of Maldives-Comorin area, some more parts of southwest and southeast Bay of Bengal, remaining parts of Andaman sea and Andaman Islands and some parts of east central Bay of Bengal. The Northern Limit of Monsoon (NLM) passes through Lat. 5°N/Long. 75°E, Lat. 5°N/Long. 80°E, Lat. 10°N/Long. 87°E, Lat.13°N/Long. 90°E and Lat. 16°N/Long. 94.5°E.
- Heat wave to severe heat wave conditions in many parts are very likely to continue over Vidarbha; in some parts over Madhya Pradesh; at isolated pockets over Haryana, Chandigarh & Delhi, Rajasthan and Uttar Pradesh during next 48 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 yesterday): at many places over Arunachal Pradesh, Andaman & Nicobar, Sub-Himalayan West Bengal & Sikkim; at a few places over Assam & Meghalaya and at isolated places over Vidarbha and Tamilnadu & Puducherry. Thunderstorms observed (from 1730 hours IST of yesterday to 0530 hours IST of today): at isolated places over Rajasthan, Bihar, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Bengal & Sikkim, Tamilnadu & Puducherry and Kerala.
- Yesterday's, Heat Wave Conditions were observed in some parts with Severe Heat wave in isolated pockets over East Uttar Pradesh and West Rajasthan; Heat wave conditions in many parts over Vidarbha; in some parts over West Madhya Pradesh and in isolated pockets over Haryana, Chandigarh & Delhi, East Rajasthan, West Uttar Pradesh and East Madhya Pradesh.
- Maximum temperature departures as on 30.05.2019: Maximum temperatures were markedly above normal (5.1°C or more) at a few places over Haryana, Chandigarh & Delhi, West Rajasthan, Uttarakhand and North Interior Karnataka; at isolated places

over Rayalaseema and South Interior Karnataka; appreciably above normal (3.1°C to 5.0°C) at most places over Punjab, West Uttar Pradesh and Jharkhand; at many places over Jammu & Kashmir, Himachal Pradesh, East Uttar Pradesh, West Madhya Pradesh, Marathwada, Vidarbha and Nagaland, Manipur, Mizoram & Tripura; at a few places over Bihar, Madhya Maharashtra, Coastal Karnataka and Lakshadweep; at isolated places over Gangetic West Bengal, Gujarat Region, Telangana, Kerala and Tamil Nadu & Puducherry; above normal (1.6°C to 3.0°C) at most places over East Madhya Pradesh; at a few places over Chhattisgarh and Rayalaseema and at isolated places over Odisha. They were appreciably below normal (-5.0°C to -3.1°C) at isolated places over Andaman & Nicobar Islands, Assam & Meghalaya and Coastal Andhra Pradesh; below normal (-3.0°C to -1.6°C) at many places over Sub-Himalayan West Bengal & Sikkim and near normal over rest parts of the country.

- Today, the highest maximum temperature of 48.2°C recorded at Banda (East Uttar Pradesh).
- Minimum temperature departures as on 30.05.2019: Minimum temperatures were appreciably above normal (3.1 to 5.0) at many places over West Rajasthan; at a few places over West Madhya Pradesh and at isolated places over East Rajasthan and Vidarbha; above normal (1.6°C to 3.0°C) at most places over Marathwada; at many places over Karnataka; at a few places over Jammu & Kashmir & Punjab, Gangetic West Bengal, Odisha, Kerala, Lakshadweep and Tamilnadu & Puducherry ;at isolated places over Himachal Pradesh, West Uttar Pradesh, Jharkhand and Madhya Maharashtra. They were appreciably below normal (-3.1°C to -5.0°C) at a few places over Rayalaseema and at isolated places over Coastal Andhra Pradesh; below normal (-1.6°C to -3.0°C) at a few places over Assam & Meghalaya, Chhattisgarh and East Uttar Pradesh and at isolated places over Andaman & Nicobar Islands and near normal over rest parts of the country.

Weather Warning during next 5 days (IMD)

- 31 May (Day 1): Thunderstorm & lightning accompanied with gusty winds (40-50 kmph) at isolated places over South Interior Karnataka, Tamilnadu & Puducherry, Kerala and Lakshadweep; with gusty winds (30-40 kmph) at isolated places over Chhattisgarh, Jharkhand, Gangetic West Bengal, Odisha, Coastal Andhra Pradesh, Telangana and Rayalaseema. Heavy rainfall at isolated places very likely over Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, South Interior Karnataka, Kerala and Andaman & Nicobar Islands. Heat Wave to severe heat wave conditions in isolated pockets very likely over Madhya Pradesh,. Heat wave conditions in most parts with severe heat wave in isolated pockets over East Uttar Pradesh, West Rajasthan and Vidarbha. Heat wave conditions in some parts over Telangana and Marathwada and at isolated pockets over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, West Uttar Pradesh, East Rajasthan, Bihar, Jharkhand, Gujarat state, Madhya Maharashtra, Interior Karnataka

and Tamilnadu & Puducherry. Strong wind with speed reaching 40-50 kmph very likely to prevail over southwest Arabian Sea, southwest Bay of Bengal, Andaman Sea and adjoining southeast Bay of Bengal. Fishermen are advised not to venture into this area.

- 01 June (Day 2): Thunderstorm & lightning accompanied with gusty winds (40-50 kmph) at isolated places very likely over Rayalaseema, South Interior Karnataka, Tamilnadu & Puducherry and Kerala; with gusty winds (30-40 kmph) at isolated places over Chhattisgarh, Bihar, Jharkhand, Odisha and Coastal Andhra Pradesh; with duststorm and gusty winds (30-40 kmph) at isolated places over Uttar Pradesh. Heavy rainfall at isolated places very likely over Assam & Meghalaya, Sub-Himalayan West Bengal & Sikkim, Nagaland, Manipur, Mizoram & Tripura, Rayalaseema and South Interior Karnataka. Heat Wave Conditions in most parts with severe heat wave in isolated pockets likely over West Rajasthan. Heat Wave Conditions in some parts with severe heat wave in isolated pockets likely over East Rajasthan; in some parts with severe heat wave in isolated pockets likely over East Rajasthan; heat wave conditions in some parts over West Madhya Pradesh, Punjab and Vidarbha and at isolated pockets over Haryana, Chandigarh & Delhi, Uttar Pradesh, East Madhya Pradesh, Jharkhand, Marathwada and Telangana. Strong wind with speed reaching 40-50 kmph very likely to prevail over southwest Arabian Sea, southwest Bay of Bengal, Andaman Sea and adjoining southeast Bay of Bengal. Fishermen are advised not to venture into this area.
- 02 Jun (Day 3): Thunderstorm accompanied with hail and squall (50-60 kmph) at isolated places over Uttarakhand; duststorm and squall (50-60 kmph) at isolated places over Haryana, Chandigarh & Delhi and Uttar Pradesh; with squall (50-60 kmph) at isolated places over Gangetic West Bengal; with hail (40-50 kmph) at isolated places likely over Himachal Pradesh; with gusty winds (30-40 kmph) at isolated places likely over Jammu & Kashmir, Vidarbha, Bihar, Jharkhand and Odisha. Heavy to very heavy rainfall at isolated places likely over Assam & Meghalaya and heavy rainfall at isolated places over Nagaland, Manipur, Mizoram & Tripura. Heat Wave Conditions in many parts likely over West Rajasthan; in some parts likely over Punjab and Vidarbha and at isolated pockets over Haryana, Chandigarh & Delhi, Madhya Pradesh and Telangana. Heat wave conditions in some parts with severe heat wave in isolated pockets likely over East Rajasthan.
- 03 Jun (Day 4): Thunderstorm accompanied with hail and squall (50-60 kmph) at isolated places over Uttarakhand; duststorm and squall (50-60 kmph) at isolated places over Haryana, Chandigarh & Delhi and Uttar Pradesh; with squall (50-60 kmph) at isolated places over Gangetic West Bengal; with hail (40-50 kmph) at isolated places likely over Himachal Pradesh; with gusty winds (30-40 kmph) at isolated places likely over Jammu & Kashmir, Vidarbha, Bihar, Jharkhand and Odisha. Heavy to very heavy rainfall at isolated places likely over Nagaland,

Manipur, Mizoram & Tripura and heavy rainfall at isolated places over Assam & Meghalaya. Heat Wave Conditions in many parts likely over West Rajasthan; in some parts likely over Punjab and Vidarbha and at isolated pockets over East Rajasthan and Madhya Pradesh. Heat wave conditions in some parts with severe heat wave in isolated pockets likely over Punjab.

- 04 Jun (Day 5): Thunderstorm accompanied with hail and squall (50-60 kmph) at isolated places over Uttarakhand; duststorm and squall (50-60 kmph) at isolated places over Haryana, Chandigarh & Delhi and Uttar Pradesh; with squall (50-60 kmph) at isolated places over Gangetic West Bengal; with hail (40-50 kmph) at isolated places likely over Himachal Pradesh; with gusty winds (30-40 kmph) at isolated places likely over Jammu & Kashmir, Vidarbha, Bihar, Jharkhand and Odisha. Heavy to very heavy rainfall at isolated places likely over Nagaland, Manipur, Mizoram & Tripura and heavy rainfall at isolated places over Assam & Meghalaya and Tamilnadu. Heat Wave Conditions in many parts likely over West Rajasthan; in some parts likely over Punjab and Vidarbha and at isolated pockets over East Rajasthan and Madhya Pradesh. Heat wave conditions in some parts with severe heat wave in isolated pockets likely over Punjab.
- The weather outlook for the period of seven days i.e 31 May to 07 June 2019 forecasted (*Provided by Real-Time Weather Forecasts from NOAA/NCEP collected from <http://monsoondata.org/wx2/>*) rain/thundershower may occur over Rajasthan, Bihar, Sub-Himalayan West Bengal & Sikkim, Vidarbha, Kerala, Tamilnadu & Puducherry, Andaman & Nicobar Islands and North Eastern States. (Fig. 2).

Agricultural activities (AICRPAM-CRIDA)

Vidarbha region of Maharashtra

Weather condition:

Dry weather prevailed in Vidarbha region of Maharashtra of Maharashtra state during past few days. Maximum temperature was 2.1 °C above normal and minimum temperature was 0.2 °C below normal.

Contingency measure:

- Heat wave conditions likely in isolated pockets over Vidarbha during next 5 days. Under the prevailing very hot weather condition, Apply need based irrigation in early morning or evening hours. Maintain adequate moisture in the soil profile to reduce the impact of heat stress on summer crops with irrigation schedule at about 6 days interval, irrigating in the early morning or late afternoon.

- Heat wave conditions which affects moisture stress of groundnut crop in pod filling stage which, may resulted into drastic reduction in yield. Hence irrigate crop through protective irrigation. Frequent light irrigation coupled with basin mulching (2 to 3 inch layer of organic mulch over the root zone and a few inches away from the trunk) is advisable in orange and mango orchards to reduce solar heat stress.
- Provide thatches/shading made of cotton/pigeonpea stalks/green shade net to young fruit plantation and nurseries to reduce heat stress impact. Spraying of antitranspirant (Kaolin 5 to 7%) may be undertaken to minimize water loss in crops/orchards.
- Provide proper ventilation and heat protection in the animal/poultry sheds. Applying gunny bags/grass on roof of shed with sprinkling of water is advisable to reduce heat impact. Avoid in-situ burning of crop residues.

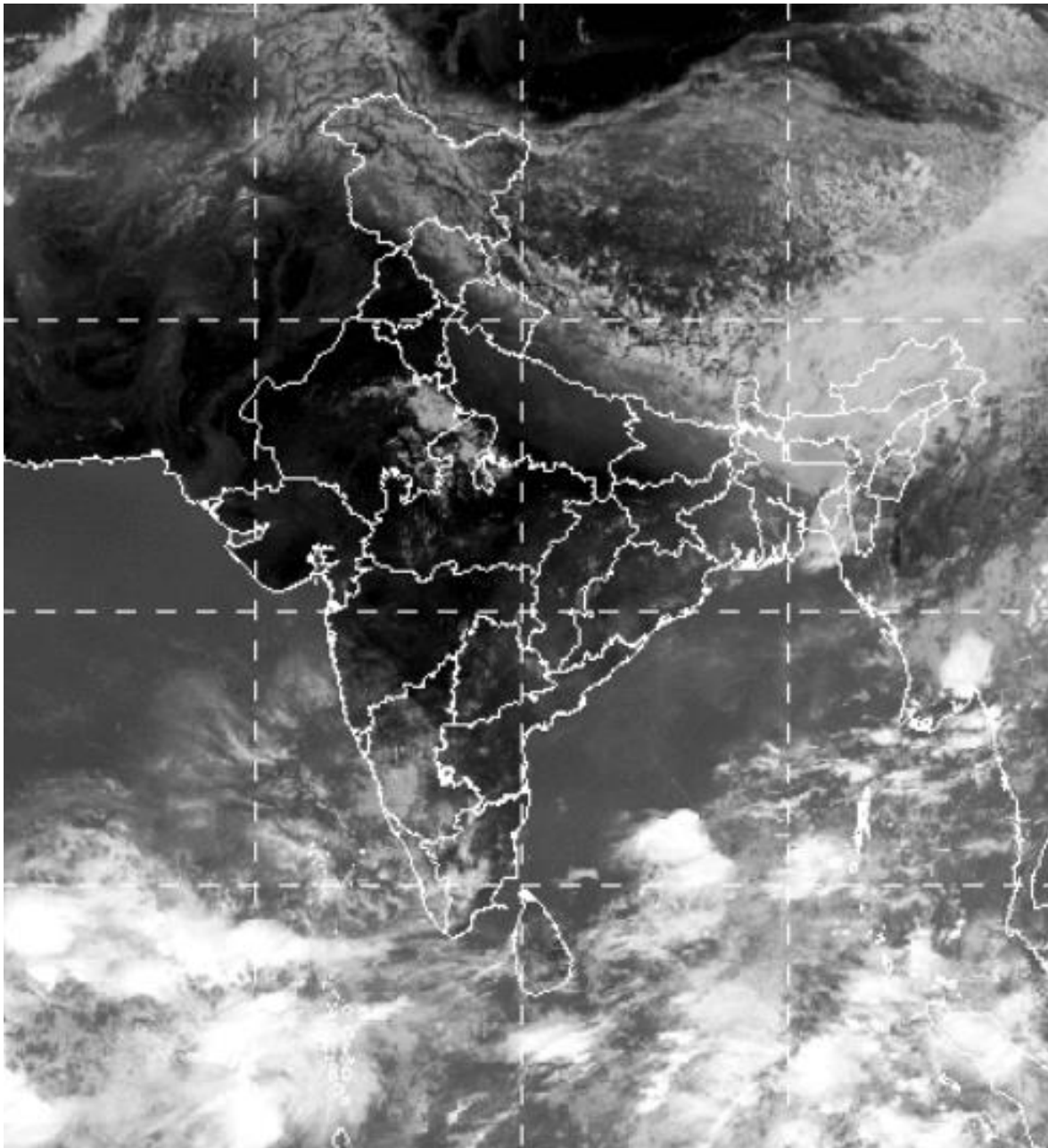


Figure: 1. Latest available satellite picture as on 31 May 2019 at 0230 Hrs (IST).

(Source: IMD).

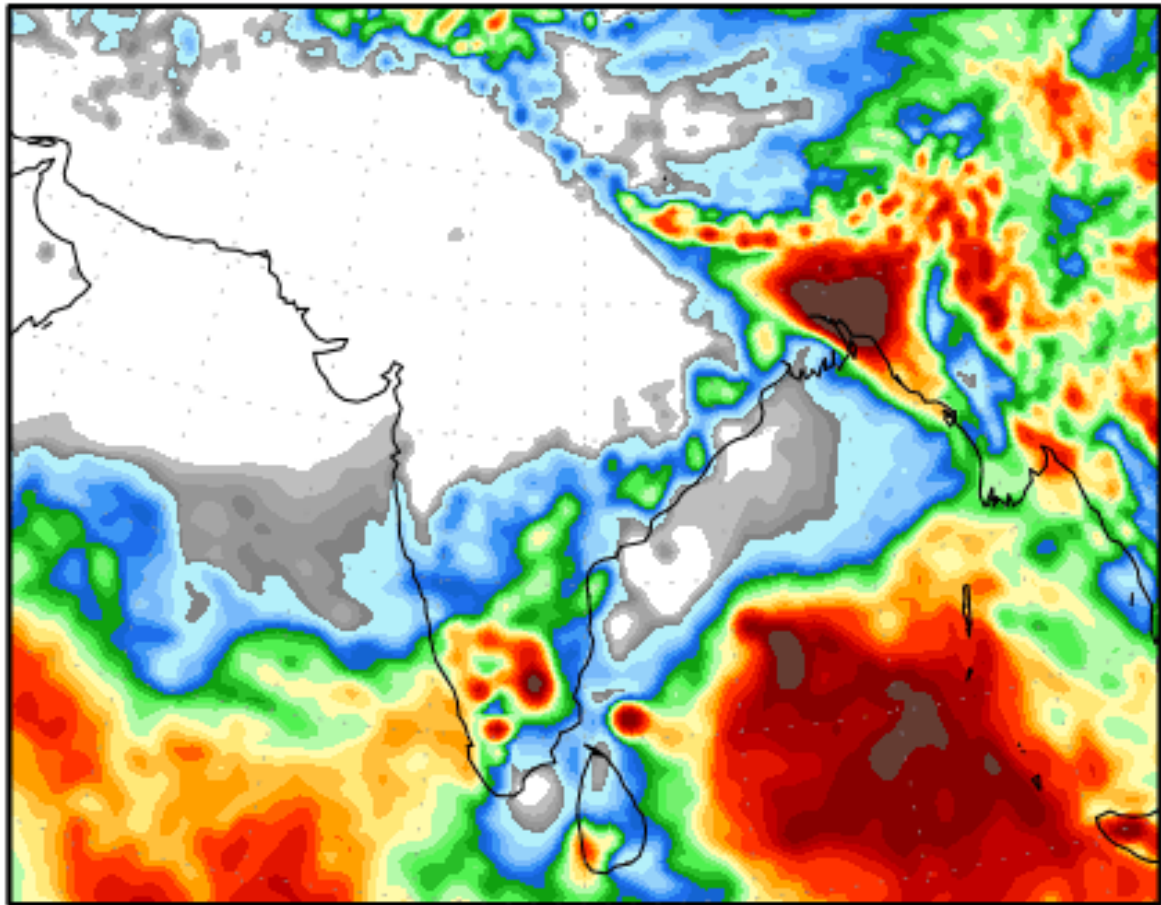


Figure: 2. Precipitation forecast for 31 May to 07 June 2019 (Source: NOAA NCEP).