

All India Coordinated Research Project on Agrometeorology

CRIDA, Santoshnagar, Hyderabad – 500 059

Daily Crop Weather Information as on 31 Jul 2021

Attention: Rajiv Maheshwari, OSD, ICAR

Significant Weather Features (IMD)

- The Well Marked Low Pressure Area lies over southwest Bihar & neighbourhood with the associated cyclonic circulation extending upto 7.6 km above mean sea level. It is likely to move west-northwestwards across southern parts of Uttar Pradesh during next 2 days.
- The Low Pressure Area lies over south Haryana & neighbourhood with the associated cyclonic circulation extending upto 5.8 km above mean sea level. It is likely to become less marked during next 24 hours. The remnant cyclonic circulation is likely to merge with the other low pressure system thereafter.
- The eastern end of the monsoon trough is likely to shift north of its normal position from tomorrow. However, its western part is very likely to remain to the south of its normal position and active during next 4-5 days.
- Under the influence of the above systems:
 - I) Fairly widespread to widespread rainfall with isolated heavy to very heavy falls likely over East Madhya Pradesh during 31st July-02nd August and over Chhattisgarh & East Uttar Pradesh on 31st July. Isolated extremely heavy falls are likely over East Madhya Pradesh on 31st July.
 - II) Widespread rainfall with isolated heavy to very heavy falls very likely to continue over East Rajasthan and West Madhya Pradesh during 31st July-04th August with peak activity during 31st July-03rd August. Isolated extremely heavy falls likely over East Rajasthan and West Madhya Pradesh during 31st July-02nd August, 2021.
 - III) Fairly widespread to widespread rainfall with isolated heavy to very heavy falls very likely over West Uttar Pradesh during 01st -02nd August.
 - IV) Current spell of fairly widespread to widespread rainfall activity very likely to continue over rest parts of North India with isolated heavy falls over Jammu & Kashmir on 31st July; Punjab on 01st August; Himachal Pradesh during 31st-02nd August and Uttrakhand and Haryana during 31st July-04th August.
- 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 most places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, West Bengal & Sikkim, Bihar, Jharkhand, Haryana, Uttarakhand, Himachal Pradesh, East Rajasthan, East Madhya Pradesh, Konkan & Goa, Vidarbha, Chhattisgarh, Coastal Karnataka and Kerala & Mahe; at many places over Andaman & Nicobar Islands, Arunachal Pradesh, Odisha, Uttar Pradesh, Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, West Madhya Pradesh and Madhya Maharashtra; at a few places over West Rajasthan, Gujarat Region and Interior Karnataka and at isolated places over Punjab, Saurashtra & Kutch, Marathwada, Coastal Andhra Pradesh & Yanam, Telangana, Rayalseema and Tamilnadu, Puducherry & Karaikal.
- Heavy Rainfall observed(from 0830 hours IST of yesterday to 0830 hours IST of today): Extremely Heavy Rainfall at isolated places over East Rajasthan and West Madhya Pradesh; Very Heavy Rainfall at isolated places over Uttar Pradesh, Gangetic West Bengal, Jharkhand, West Rajasthan, East Madhya Pradesh and Chhattisgarh and Heavy Rainfall at isolated places over Himachal Pradesh, Assam & Meghalaya, Bihar, Andaman & Nicobar Islands and Coastal Karnataka.
- Thunderstorm observed (from 0830 hours IST of yesterday to 0830 hours IST of today): at isolated places over Himachal Pradesh, Uttar Pradesh, Bihar, Jharkhand, Rajasthan, Haryana, Nagaland, Mizoram, Manipur & Tripura and Assam & Meghalaya.
- Maximum Temperature Departures as on 30-07-2021: Maximum temperatures were appreciably below normal (-3.1°C to -5.0°C) at a few places over Coastal Karnataka; above normal (1.6°C to 3.1°C) at many places over Uttarakhand and Kerala & Mahe; at a few places over Telangana, South Interior Karnataka and Tamilnadu, Puducherry & Karaikal and at isolated places over Coastal Andhra Pradesh & Yanam and Nagaland, Mizoram, Manipur & Tripura. They were markedly below normal (-5.1°C to Less) at many places over Jharkhand; at a few places over Gangetic West Bengal, Haryana, Chandigarh & Delhi and Vidarbha and at isolated places over West Rajasthan, West Madhya Pradesh and Odisha; appreciably below normal (-3.1°C to -5.0°C) at many places over East Madhya Pradesh and Chhattisgarh; at a few places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Bihar and East Rajasthan and below normal (-1.6°C to -3.0°C) at many places over Marathwada; at a few places over Madhya Maharashtra and at isolated places over Punjab, Uttar Pradesh, North Interior Karnataka and Gujarat State and near normal over rest parts of the

country. Yesterday, the highest maximum temperature of 38.7°C was reported at Bikaner (West Rajasthan).

- Minimum Temperature Departures as on 31-07-2021: Minimum temperatures are above normal (1.6°C to 3.0°C) at many places over Andaman & Nicobar Islands and Coastal Andhra Pradesh & Yanam; at a few places over Saurashtra & Kutch and Kerala & Mahe; at isolated places over West Bengal & Sikkim, Assam & Meghalaya, Telangana and Tamilnadu, Puducherry & Karaikal. They are below normal (-1.6°C to -3.0°C) at a few places over East Rajasthan; at isolated places over Haryana, Chandigarh & Delhi, Madhya Pradesh and Vidarbha and near normal over rest parts of the country. Today, the lowest minimum temperature of 18.2°C is reported at Khargone (West Madhya Pradesh).

Weather Warning during the next 5 days (IMD)

- 31 July (Day 1): Heavy to Very Heavy Rainfall with Extremely Heavy Falls at isolated places very likely over East Rajasthan and Madhya Pradesh; Heavy to Very Heavy Rainfall at isolated places over East Uttar Pradesh, West Rajasthan, Chhattisgarh, Sub-Himalayan West Bengal & Sikkim and Assam & Meghalaya and Heavy rainfall at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Haryana, West Uttar Pradesh, Jharkhand, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra and Konkan & Goa. Thunderstorm accompanied with lightning very likely at isolated places over Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura. Strong winds (speed 50-60 kmph gusting to 70 kmph) very likely over Southwest & Westcentral Arabian Sea; (speed 45-55 kmph gusting to 65 kmph) over North Arabian Sea and (speed 40-50 kmph gusting to 60 kmph) over along & off Gujarat-Maharashtra coasts. Fishermen are advised not to venture into these areas.
- 01 August (Day 2): Heavy to Very Heavy Rainfall with Extremely Heavy Falls at isolated places likely over East Rajasthan and West Madhya Pradesh; Heavy to Very Heavy Rainfall at isolated places over West Uttar Pradesh and East Madhya Pradesh and Heavy rainfall at isolated places over Himachal Pradesh, Uttarakhand, Punjab, Haryana, East Uttar Pradesh, West Rajasthan, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh and Assam & Meghalaya. Thunderstorm accompanied with lightning very likely at isolated places over Bihar and Assam & Meghalaya. Strong winds (speed 50-60 kmph gusting to 70 kmph) very likely over Southwest & Westcentral Arabian Sea; (speed 45-55 kmph gusting to 65 kmph) over North Arabian Sea and (speed 40-50 kmph gusting to 60

kmph) over along & off Gujarat-Maharashtra coasts. Fishermen are advised not to venture into these areas.

- 02 August (Day 3): Heavy to Very Heavy Rainfall with Extremely Heavy Falls at isolated places likely over West Madhya Pradesh and East Rajasthan; Heavy to Very Heavy Rainfall at isolated places over West Uttar Pradesh, East Madhya Pradesh and Sub-Himalayan West Bengal & Sikkim and Heavy rainfall at isolated places over Himachal Pradesh, Uttarakhand, Haryana, Andaman & Nicobar Islands, Assam & Meghalaya and Gujarat region. Thunderstorm accompanied with lightning very likely at isolated places over Bihar and Tamilnadu, Puducherry & Karaikal. Strong winds (speed 50-60 kmph gusting to 70 kmph) very likely over Southwest & Westcentral Arabian Sea; (speed 45-55 kmph gusting to 65 kmph) over North Arabian Sea and (speed 40-50 kmph gusting to 60 kmph) over along & off Gujarat-Maharashtra coasts. Fishermen are advised not to venture into these areas.
- 03 August (Day 4): Heavy to Very Heavy Rainfall at isolated places likely over East Rajasthan and West Madhya Pradesh and Heavy rainfall at isolated places over Uttarakhand, Haryana, West Uttar Pradesh, East Madhya Pradesh, Bihar, Gangetic West Bengal, Odisha, Konkan & Goa and Gujarat region. Thunderstorm accompanied with lightning very likely at isolated places over Tamilnadu, Puducherry & Karaikal. Strong winds (speed 50-60 kmph gusting to 70 kmph) likely over Southwest & Westcentral Arabian Sea; (speed 45-55 kmph gusting to 65 kmph) over North Arabian Sea and (speed 40-50 kmph gusting to 60 kmph) over along & off Gujarat-north Maharashtra coasts. Fishermen are advised not to venture into these areas.
- 04 August (Day 5): Heavy to Very Heavy Rainfall at isolated places likely over East Rajasthan and West Madhya Pradesh and Heavy rainfall at isolated places over Uttarakhand, Haryana, Bihar, Gangetic West Bengal, Odisha and Konkan & Goa. Thunderstorm accompanied with lightning very likely at isolated places over Tamilnadu, Puducherry & Karaikal. Strong winds (speed 50-60 kmph gusting to 70 kmph) likely over Southwest & Westcentral Arabian Sea; (speed 45-55 kmph gusting to 65 kmph) over North Arabian Sea and (speed 40-50 kmph gusting to 60 kmph) over along & off Gujarat-north Maharashtra coasts. Fishermen are advised not to venture into these areas.
- The weather outlook for seven days i.e., 31 Jul to 08 Aug 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 0.0 to 3.7 Bright sunshine hours was recorded during last week. During last week 695.0 mm rainfall was recorded at Agrometeorological observatory, Dr. B.S.K.K.V. Dapoli. The maximum and minimum temperature ranged from 26.9 to 29.4 and 22.4 to 24.3 oC respectively. Wind velocity ranged from 9.5 to 11.8 km and wind was blowing from south westerly Direction.

Contingency measure:

- General advise:For controlling the crabs from rice field, use bait prepare with the help of cook rice from 1 kg of raw rice and add insecticide Acephate 75WP @ 75 gm and make 100 arecanut size balls and keep them in each crab burrow and close it with wet mud. On the next day if some of the burrows are found open, again put the bait. For better control continue it for 7 days and also perform cooperatively with other farmers (Note: insecticide is not under label claim)
- SMS advisory:During rainy season, to enhance adhesion of pesticide sprays to plant surfaces and increase their resistance to rain, mix sticker into spraying solution
- Kharif rice:Apply 20% additional dose of nitrogenous fertilizer @430 gms urea/ Guntha to the rice crop which is survived after flood situation during low intensity of rainfall.Apply second split dose of nitrogenous fertilizer @870 gms urea/Guntha to rice crop at 30 to 40 days after transplanting.After flood water receding, if seed of short duration rice varieties available, then sow the sprouted rice seeds of short duration varieties in puddled field by direct sowing method.Due to forecast of heavy rainfall, maintain optimum water level of 5 cm in transplanted rice field.Due to intermittent rainfall and cloudy weather condition, there is possibility of incidence of blast disease on rice crop. If incidence is noticed spray tricyclazole 75%WP @ 10 gm per 10 liter of water during clear weather (no rainfall).Due to intermittent rainfall and cloudy weather condition, there is possibility of incidence of blue beetle and caseworm on low land rice, hence observe crop regularly for infestation of pest. If incidence of blue beetle is noticed on rice crop, spray Quinalphos 25% EC @ 20 ml or Triazophos 40%EC@ 12.5 ml or Lambda cyhalothrin 5%EC @ 5 ml per 10 liter of water during clear weather (no rainfall). If incidence of rice case worm is noticed on rice crop, then flood the field with water followed by dragging the rope to dislodge the

cases and drain out water from field. Collect the cases and destroy then maintain the water level of 5 cm in the field with fresh water. Due to intermittent rainfall and cloudy weather, there is possibility of incidence of leaf folder in transplanted rice crop, hence observe crop regularly for infestation of pest. For control of leaf folder apply Cartap hydrochloride 4% granule @7.5 kg or Chlorantraniliprole 0.4% granule @ 4 kg or Fipronil 0.3% granule @8.3 kg per acre in moist soil.

- Groundnut: Follow weeding and earthing up in groundnut crop at 30-35 DAS
- Mango: Apply paclobutrazol (cultar/coltar) for regular flowering to the mango trees having age of 10 years and above. Before application 1st measure east-west and north-south diameter of the tree canopy and average it. Then calculate dose @ 3 ml per meter diameter of tree canopy. Mix this quantity of paclobutrazol in 3 to 5 liters of water. Apply this solution uniformly in 25 to 30 holes at uniform distance with 10 to 12 cm depth in circular fashion at half distance of tree cover (just inside the manuring ring) from the base of tree. For making hole crowbar can be used. Ensure the drenching of uniform quantity in each hole and closed or plug hole after application. Before application of paclobutrazol make area weed free. As there is forecast for heavy to very heavy rainfall on 30th and 31st July, 2021 at isolated places, apply paclobutrazol by observing low intensity of rainfall. There is possibility for incidence of fungal diseases causes dieback of branches in mango due to humid weather. If incidence is noticed cut the infected branch portion 2-3 inches below infection point and apply bordo paste to cut portion and take a spray of 1% bordomixture or Copper oxychloride 2.5 gm per liter of water onto entire branches and stem portion of mango tree during clear weather (no rainfall).
- Cashewnut: Due to prevailing condition of continuous heavy rain, there was increase in humidity and low sunshine hours favors development of fungal disease-causing leaf drop and dieback of branches in cashewnut, for control spray 0.2% Mancozeb @ 20 ml per 10 liter of water on entire tree during clear weather (no rainfall). For above 4-year-old cashewnut tree apply 40 kg FYM, 2 kg urea, 1.5 kg single super phosphate and 500 g muriate of potash per tree by digging circular ring just inside the spread of tree and fill the circular ring with soil after application of fertilizer. Apply 1/4th, 1/2 and 3/4th of abovementioned fertilizers dose per tree for 1, 2 and 3-year-old cashew plantation, respectively. Note: Apply fertilizers when the intensity of rainfall is low
- Coconut: Due to prevailing condition of continuous heavy rain, there is possibility of bud rot fungal disease on young coconut palm, if incidence noticed clean the crown region and drench 1% bordomixture into it. Also as preventive measure,

spray 1 % bordomixture mixing with sticker on to crown region during clear weather (no rainfall).

- Arecanut:Due to prevailing condition of continuous heavy rain, there is possibility for incidence of koleroga disease in arecanut leads to fruit drop. If incidence of fungal disease noticed, spray of 1 % bordomixture mixing with sticker on to crown region during clear weather (no rainfall).
- Vegetable crop:Apply third split dose of nitrogen @ 10 gms urea per vine to cucurbitaceous crops at 60 DAS. Follow weeding and give earthing up at the time of fertilizer application.Due to forecast of cloudy weather and increase in humidity, there is possibility of incidence of downy mildew in cucurbitaceous vegetables, if incidence noticed, remove and destroy infected leaves and take a spray of Mancozeb or Zineb 2.5 gm /lit of water at an interval of 10 to 15 days during clear weather (no rainfall).There is possibility of incidence of red pumpkin beetle on cucumber, bitter gourd, snake gourd, bottle gourd, red pumpkin and ridge gourd etc. cucurbitaceous crops. If incidence is noticed, spray Dimethoate 30%EC @ 15 ml per 10 liters of water during clear weather (no rainfall).There is possibility for incidence of fruit fly on fruits of cucurbitaceous crops. For effective control of fruit fly, install cue lure ?Rakshak? trap @ 2 nos. per acre at the time of initiation of flowering.
- Turmeric:Apply 1st split dose of nitrogen @ 850 g urea per guntha to turmeric crop after 6 weeks of planting.
- Animal husbandry:During rainy season, goat shows symptoms like Diarrhea, reduction in feed intake and weight loss due to worms, if infection of worms is observed, give Albendazol @7.5 ml per kg weight of goat.

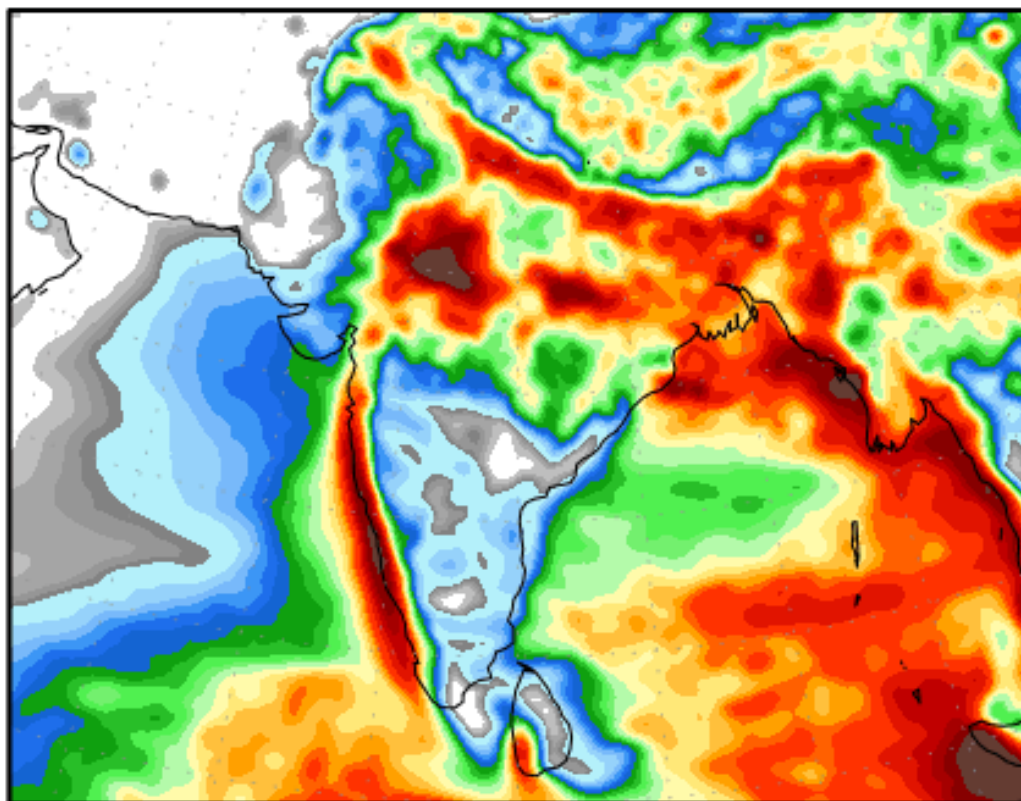


Figure:2. Precipitation forecast for 31 Jul to 08 Aug 2021 (Source: NOAA NCEP).

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