

All India Coordinated Research Project on Agrometeorology

CRIDA, Santoshnagar, Hyderabad – 500 059

Daily Crop Weather Information as on 19 August 2021

Attention: Rajiv Maheshwari, OSD, ICAR

Significant Weather Features (IMD)

- The western end of monsoon trough is near its normal position and the eastern end is south of its normal position. The eastern end of monsoon trough is very likely to shift gradually northwards towards foothills of Himalayas during next 2 days.
- A cyclonic circulation lies over south Bihar & neighbourhood at lower tropospheric levels. It is likely to move nearly westwards during next 3 days.
- Strong southerly winds from Bay of Bengal to northeast India will continue to prevail till today, the 19th August, 2021.
- Due to above meteorological conditions:
 - (i) Gradual increased in rainfall activity over Northwest India and Bihar: Fairly widespread to widespread rainfall with isolated heavy falls very likely over Bihar, East Uttar Pradesh and Uttarakhand from 19th to 23rd August, 2021. Isolated heavy to very heavy is also very likely over Uttarakhand on 19th & 20th and over East Uttar Pradesh on 19th August, 2021. Scattered to fairly widespread rainfall is very likely over West Uttar Pradesh, Himachal Pradesh, Haryana & Chandigarh and East Rajasthan during 20th to 23rd August with isolated heavy rainfalls over above areas on 20th & 21st August, 2021.
 - (ii) Enhanced rainfall activity over Central & adjoining north Peninsular India during next 2 days: Fairly widespread to widespread rainfall activity with isolated heavy falls is very likely over Gujarat region, Konkan & Goa, Madhya Maharashtra and Madhya Pradesh during 19th to 21st August; over Marathawada, Coastal Andhra Pradesh, Telangana, Chhattisgarh, Jharkhand and Gangetic West Bengal on today the 19th August, 2021. Rainfall activity is very likely to decrease thereafter over above areas.
 - (iii) Continuation of rainfall activity over Northeast India: Fairly widespread to widespread rainfall activity with isolated heavy to very heavy falls very likely to continue over Northeast India and Sub-Himalayan West Bengal & Sikkim on today, the 19th August and decrease in intensity thereafter for subsequent 2 days.

It is likely to increase with isolated heavy rainfall over the above regions from 22nd August, 2021

- 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 Madhya Pradesh, Vidarbha, Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, Bihar, Jharkhand, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Madhya Maharashtra, Marathawada, Coastal & North Interior Karnataka, Kerala & Mahe and Lakshadweep; at many places over Gangetic West Bengal, Odisha, Andaman & Nicobar Islands, Gujarat Region, Assam & Meghalaya, Coastal Andhra Pradesh, Telangana and South Interior Karnataka; at a few places over Uttarakhand, east Uttar Pradesh and Tamil Nadu, Puducherry & Karaikal and at isolated places over Himachal Pradesh, Punjab, West Uttar Pradesh, East Rajasthan, Saurashtra & Kutch and Rayalaseema.
- Heavy Rainfall (from 0830 hours IST of yesterday to 0830 hours IST of today): Heavy to very heavy rainfall observed at isolated places over South Interior Karnataka, Andaman & Nicobar Islands, Assam & Meghalaya, Marathawada, Telangana, Sub-Himalayan West Bengal & Sikkim, Gujarat region, Chhattisgarh and East Madhya Pradesh and heavy rainfall at isolated places over Tamil Nadu, Arunachal Pradesh, West Madhya Pradesh, Vidarbha, Konkan & Goa, Madhya Maharashtra and Kerala.
- Thunderstorm observed (from 0830 hrs IST of yesterday to 0830 hours IST of today): at a few places over Coastal Andhra Pradesh & Yanam and at isolated places over Himachal Pradesh, Uttarakhand, East Rajasthan, Madhya Pradesh, Chhattisgarh, Vidarbha, Bihar, Odisha, Coastal Karnataka and Tamil Nadu, Puducherry & Karaikal.
- Maximum Temperature Departures as on 18-08-2021: Maximum temperatures were appreciably above normal (3.1°C to 5.0°C) at a few places over Himachal Pradesh; at isolated places over East Uttar Pradesh and Saurashtra & Kutch; above normal (1.6°C to 3.0°C) at most places over Punjab; at a few places over West Uttar Pradesh, East Madhya Pradesh, Madhya Maharashtra, Coastal Karnataka and Andaman & Nicobar; at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad. They were markedly below normal (-5.1°C or less) at a few places over Arunachal Pradesh and Lakshadweep; appreciably below normal (-3.1°C to -5.0°C) at a few places over West Madhya

Pradesh, Konkan & Goa and Marathwada; below normal (- 1.6°C to -3.0°C) at a few places over Gangetic West Bengal, Odisha, Gujarat Region, North Interior Karnataka, Telangana and Tamil Nadu, Puducherry & Karaikal; at isolated places over Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya and Coastal Andhra Pradesh & Yanam. Yesterday, the highest maximum temperature of 42.3°C was reported at Churu (West Rajasthan).

- Minimum Temperature Departures as on 19-08-2021: Minimum temperatures are above normal (1.6°C to 3.0°C) at most places over Haryana, Chandigarh & Delhi, West Uttar Pradesh and Punjab; at many places over Rajasthan and Uttarakhand; at isolated places over Himachal Pradesh, East Uttar Pradesh, Madhya Pradesh, Odisha and Sub-Himalayan West Bengal & Sikkim. They are below normal (- 1.6°C to -3.0°C) at a few places over Andaman & Nicobar Islands, Vidarbha and Telangana; at isolated places over Coastal Andhra Pradesh & Yanam, Konkan & Goa, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal and near normal over rest parts of the country. Today, the lowest minimum temperature of 17.5°C is reported at Bulsar (Gujarat Region) over the plains of the country.

Weather Warning during the next 5 days (IMD)

- 19 August (Day 1): Heavy to very heavy rainfall with extremely heavy falls very likely at isolated places over Sub-Himalayan West Bengal & Sikkim; Heavy to very heavy rainfall at isolated places over Uttarakhand, East Uttar Pradesh, Gujarat Region, Konkan & Goa, Madhya Maharashtra, Arunachal Pradesh and Assam & Meghalaya; Heavy rainfall at isolated places over Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Jharkhand, Gangetic West Bengal, Andaman & Nicobar Islands, Saurashtra & Kutch, Marathawada, Coastal Andhra Pradesh, Telangana and Nagaland, Manipur, Mizoram & Tripura. Thunderstorm accompanied with lightning very likely at isolated places over Uttarakhand, Uttar Pradesh, East Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Jharkhand, West Bengal & Sikkim, Coastal & North Interior Karnataka, Coastal Andhra Pradesh and Telangana. Strong winds (speed 40-50 kmph gusting to 60 kmph) very likely over Southwest and Westcentral Arabian Sea. Fishermen are advised not to venture into these areas.
- 20 August (Day 2): Heavy to very heavy rainfall very likely at isolated places over Uttarakhand, West Madhya Pradesh and Sub-Himalayan West Bengal & Sikkim; Heavy rainfall at isolated places over Haryana, Uttar Pradesh, East Rajasthan, East Madhya Pradesh, Gujarat region, Konkan & Goa, Madhya Maharashtra and Bihar. Thunderstorm accompanied with lightning very likely at isolated places over Uttarakhand, Haryana, Uttar Pradesh, East Rajasthan, Madhya Pradesh,

Bihar, Jharkhand, Coastal & North Interior Karnataka, Coastal Andhra Pradesh and Tamilnadu, Puducherry & Karaikal. Strong winds (speed 40-50 kmph gusting to 60 kmph) very likely over Southwest and Westcentral Arabian Sea. Fishermen are advised not to venture into these areas.

- 21 August (Day 3): Heavy rainfall very likely at isolated places over Himachal Pradesh, Uttarakhand, Haryana, West Uttar Pradesh, East Rajasthan, West Madhya Pradesh, Sub-Himalayan West Bengal & Sikkim, Gujarat region, Konkan & Goa, Madhya Maharashtra, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal. Thunderstorm accompanied with lightning very likely at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal, Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, East Rajasthan, Jharkhand, Coastal Andhra Pradesh, Rayalaseema and Tamil Nadu, Puducherry & Karaikal. Strong winds (speed 40-50 kmph gusting to 60 kmph) very likely over Southwest and Westcentral Arabian Sea. Fishermen are advised not to venture into these areas.
- 22 August (Day 4): Heavy rainfall likely at isolated places over Uttarakhand, Sub-Himalayan West Bengal & Sikkim, Bihar, Assam & Meghalaya, South Interior Karnataka, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal. Thunderstorm accompanied with lightning likely at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal, Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, East Rajasthan, Coastal Andhra Pradesh, Rayalaseema and Tamil Nadu, Puducherry & Karaikal.
- 23 August (Day 5): Heavy to very heavy rainfall likely at isolated places over Sub-Himalayan West Bengal & Sikkim; heavy rainfall at isolated places over Uttarakhand, East Uttar Pradesh, Bihar, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Rayalaseema, South Interior Karnataka, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal. Thunderstorm accompanied with lightning likely at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal, Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, Rajasthan, Coastal Andhra Pradesh, Rayalaseema and Tamil Nadu, Puducherry & Karaikal.
- The weather outlook for seven days i.e., 19 Aug to 27 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)

Himachal Pradesh

Weather condition:

The maximum temperature ranged between 26.5 to 29.0 °C which was above normal by 0.8 to 3.0 °C and minimum temperature ranged between 17.0 to 20.0 °C which was below normal by 0.9-2.5 °C. 45.0 mm rainfall was received during the week against the normal of 139.6 mm. The relative humidity varied between 77-97 % and sunshine hours between 4.0-10.5 hrs/day with variable sky conditions (Octa 0-8). The evaporation rate varied 1.6-4.6 mm per day.

Contingency measure:

- Kharif Crops: Rice: Farmers are advised to make bund for conserving rain water in the field. Bund should be higher and wider so that more rain water can be conserved in the field.
- Maize: Hoeing and weeding should be done in it to improve the root growth and save the water consumption. Spray recommended herbicides to control fall army worms attack.
- Pulses: Advised to intercultural operation and weed free in moong and mash in irrigated areas advised. In rainfed region ensure proper moisture. For weed control in leguminous crops, sprinkle 3 liters or stomp 4.5 liters according to per hectare within 48 hours.
- Fodder Crops: Advised to sowing of fodder maize along with cowpeas and soybean in irrigated areas. Chari bajra for fodder sowing may be completed. In mid hill region root slips of setaria, hathi grass may be planted in grasslands. Advised to sowing of fodder maize along with cowpeas and soybean in irrigated areas.
- Vegetable Crops: Ensure proper drainage in field in view of rainfall.
- Bhindi & Frenchbean: Monitoring of lady finger crop against attack of mite is advised. Weed control in bhindi and frenchbean is advised.
- Tomato, Chilli, Capsicum and Brinjal: Shoot and fruit borer in brinjal and tomato crops, expected. Install pheromone trap @25 per hectare If pest population is high, spraying of recommended chemicals is advised when sky is clear. Constant monitoring of the chilli crop against attack of mites is advised. Advised to transplant of nursery crop on field with healthy seedlings. Damping off disease expected in seedling raising of tomato, brinjal, chillies and capsicum etc. Drenching of seedbeds with recommended chemical.
- Poly House Agriculture: Open the side and top for temperature control. During

rains top and side bent should be closed. Advised nursery sowing of Tomato, Brinjal, chillies and capsicum crops in poly house. Cucurbits plantation may be done in polytubes under the polyhouse. Mites expected in polyhouse. For control of mites in polyhouse spray recommended chemicals.

- Agro Forestry: Nursery of medicinal plants viz. aswagandha, tulsi, digitalis, jangli bhindi and agarkara can be grown in the fields. Plantation of beunce can also be done. Trees saplings grown in the polythene bags may be shifted into the fields.
- Tea: Advised picking in tea at 8-10 days interval to maintain the quality and productivity. Monitor for mites and Milli bug expected in the orchards, for control of milli bug spray recommended chemicals.
- Livestock: High temperature expected. Protects animals from high temperature stress with splash water on their body 2-3 times a day. Milk the animals at cooler place. Monitor the animals for FMD and advised protect calves against parasites, get them dewormed with piperazine liquid @ 4 ml/kg body weight, first at 10 days of age, then 15 days and then monthly upto three months of age and then quarterly upto one year of age. Vaccination. Ecto-parasite attack is expected in this weather for control spray Butox @ 2ml per litre in cowshed Give mixture of hay & green fodder.
- Poultry: Make sure to deworm your older flocks every month against round-worms. Temperature is rising above 300C, so ensure proper ventilation in poultry houses. Replace the poultry houses with fresh litter and keep the houses clean and ensure drinking water to the birds. For precautionary measures spray form a line 40% @ 1litre in 9 litres of water in outside or surrounding of farm. Provide vitamin A and vitamin B-complex with water.
- Mushrooms: Maintain room temperature 18-22oC and relative humidity around 85% for successful cultivation.
- Horticulture: Spray micro nutrients of zinc, copper, manganese, iron and boron in mango, grape, citrus and guava orchards. If a termite outbreak appears on the trees, sprinkle recommended chemicals. Monitor foliar pest on plants of Citrus species. Spray approved medicine for pomegranate butterfly and fruit borer insect in pomegranate and litchi by dissolving in water.
- Apiculture: Insert the brood chamber without frame for ensuring aeration. Dust suplhur on sealed brood in the colony and not on larvae to control mites attack on honeybees. Also insert empty frame /combs for egg laying to the queen as the population starts builds up. For protection from ants, put the legs of apiary into water so that ants could not attack apiary. Keep the colonies in shady places and

sprinkle water if possible to reduce the heat as temperature rising high in the region.

- **Water Storage:** Farmers are advised make arrangement for storing rain water in pond made in the field. This water can be used for irrigation in the crops at suitable time during dry spell. Mulch material may also be arranged to use during dry spell. Farmers are also advised to increase the amount of potash it helps in minimizing the losses due to the moisture stress during dry spell. In rain fed areas, use of mulches is beneficial for conservation of moisture in the soil. Farmers are advised to do proper arrangement for storing rain water at one portion in the field. This water can be used for irrigation in the crops at suitable time during dry spell.

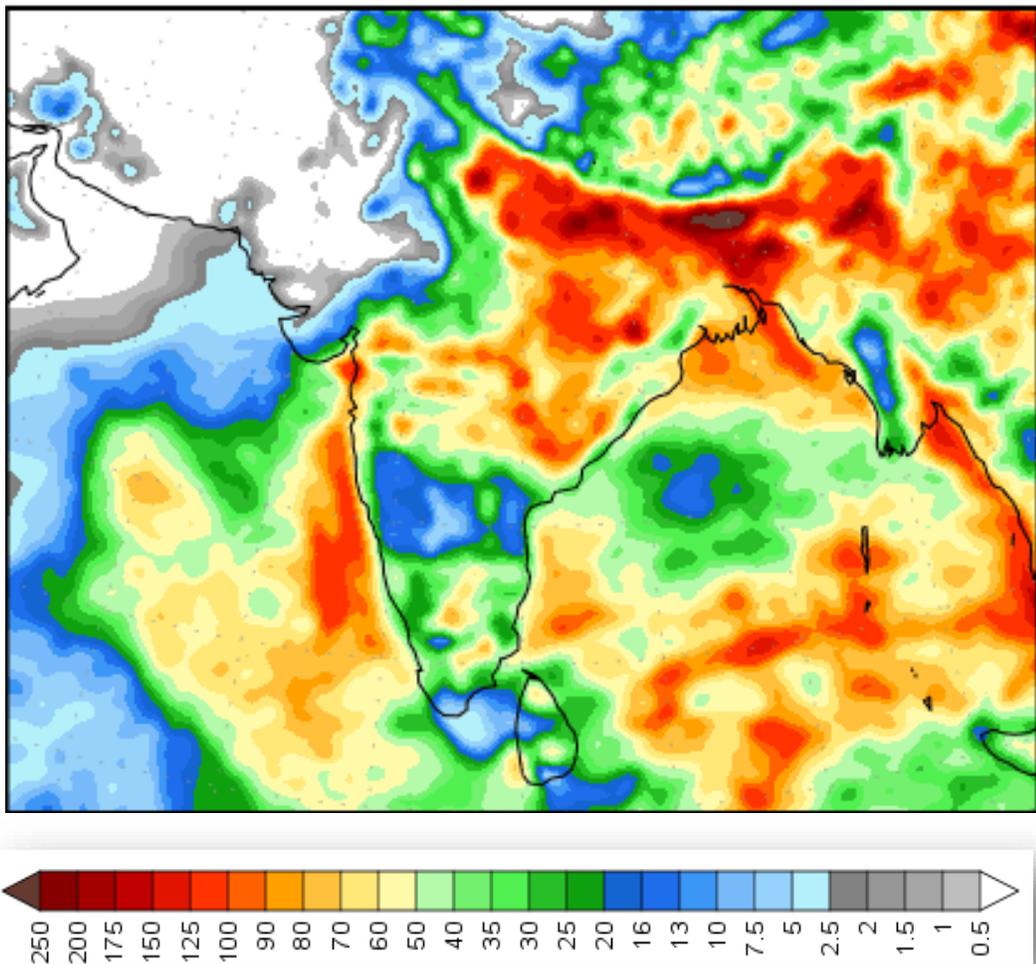


Figure:2. Precipitation forecast for 19 Aug to 27 Aug 2021 (Source: NOAA NCEP).

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