

All India Coordinated Research Project on Agrometeorology

CRIDA, Santoshnagar, Hyderabad – 500 059

Daily Crop Weather Information as on 20 October 2021

Attention: Rajiv Maheshwari, OSD, ICAR

Significant Weather Features (IMD)

- The Southwest monsoon withdrawal line continues to pass through Lat. 27.0°N/Long. 92.0°E, Kohima, Silchar, Krishnanagar, Baripada, Malkangiri, Nalgonda, Bagalkote, Vengurla, Lat. 16.0°N/Long. 65.0°E and Lat. 16.0°N/Long. 60.0°E. Conditions are becoming favourable for further withdrawal of Southwest Monsoon from remaining parts of Northeast India; entire north Bay of Bengal; remaining parts of West Bengal; some parts of Central Bay of Bengal; remaining parts of Odisha; some parts of Andhra Pradesh and Telangana; entire Goa; some parts of Karnataka and some parts of Central Arabian Sea around 23rd October.
- With likely setting in of northeasterly winds in the lower tropospheric levels over Bay of Bengal and extreme south Peninsular India, the Southwest Monsoon is likely to withdraw from entire country around 26th October, 2021. Simultaneously, the Northeast Monsoon rains are also likely to commence over Southeast Peninsular India from around 26th October, 2021.
- A fresh Western Disturbance is likely to affect Western Himalayan Region especially Jammu, Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad and Himachal Pradesh during 22nd-24th October and adjoining plains of Northwest India during 23rd-24th October, 2021. Isolated heavy rainfall with thunderstorm & lightning likely over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad and Punjab on 23rd; over Himachal Pradesh on 24th October, 2021.
- A cyclonic circulation lies over Bihar & neighbourhood. Under its influence, fairly widespread to widespread light to moderate rainfall with isolated heavy fall and thunderstorms & lightning very likely over Arunachal Pradesh, Assam & Meghalaya, Tripura, SubHimalayan West Bengal & Sikkim on 20th & 21st and over Gangetic West Bengal and Bihar on 20th. Isolated Extremely heavy falls also likely over Sub-Himalayan West Bengal & Sikkim on 20th and very heavy falls over Arunachal Pradesh and Assam & Meghalaya on 20th October.
- A cyclonic circulation lies over south Tamilnadu coast & neighbourhood and it is likely to persist during next 2-3 days. Under its influence, fairly widespread to wide spread rainfall with isolated heavy falls with thunderstorm & lightning very

likely over Kerala & Mahe and Tamilnadu, Puducherry & Karaikal during 20th-24th and over Coastal & South Interior Karnataka during 22nd-24th October. Isolated very heavy falls also very likely over Kerala & Mahe on 21st and over Tamil Nadu, Puducherry & Karaikal on 20th & 21st October.

- The images showing the latest satellite picture in the figure. 1.

Main Weather Observations (IMD)

- Rainfall/Thundershowers observed (from 0830 hrs IST of yesterday to 0830 hrs IST today): at most places over Bihar, West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura; at many places over Uttarakhand, East Uttar Pradesh, Jharkhand and Odisha; at a few places over and Andaman & Nicobar Islands and at isolated places over East Rajasthan, Madhya Pradesh, Chhattisgarh, Tamilnadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Coastal & South Interior Karnataka and Kerala & Mahe.
- Heavy rainfall observed (from 0830 hrs IST of yesterday to 0830 hrs IST today): Heavy to very heavy rainfall at a few places with extremely heavy fall at isolated places over Sub-Himalayan West Bengal & Sikkim; Heavy to very heavy rainfall with extremely heavy fall at isolated places over Bihar and Heavy to very heavy rainfall at isolated places over Uttarakhand.
- Thunderstorm observed (from 0830 hrs IST of yesterday to 0830 hrs IST of today): at isolated places over Bihar, Jharkhand, Coastal Andhra Pradesh & Yanam, Uttar Pradesh, Gangetic West Bengal, Odisha and Tamilnadu, Puducherry & Karaikal.
- Maximum Temperature Departures as on 19-10-2021: Maximum temperatures were appreciably above normal (3.1°C to 5.0°C) at a few places over Coastal Andhra Pradesh & Yanam; at isolated places over Tamilnadu, Puducherry & Karaikal; above normal (1.6°C to 3.0°C) at a few places over Rayalaseema; at isolated places over Telangana, Kerala & Mahe and Assam & Meghalaya. They were markedly below normal (-5.1°C or less) at isolated places over West Bengal & Sikkim; appreciably below normal (-3.1°C to -5.0°C) at many places over Uttarakhand and Uttar Pradesh; at a few places over West Madhya Pradesh; at isolated places over Andaman & Nicobar Islands and East Madhya Pradesh; below normal (-1.6°C to -3.0°C) at many places over East Rajasthan, Bihar and Haryana, Chandigarh & Delhi; at a few places over Gujarat state and Odisha; at isolated places over West Rajasthan and Himachal Pradesh and near normal over rest parts of the country. Yesterday, the highest maximum temperature of 37.1°C was reported at Barmer (West Rajasthan).

- Minimum Temperature Departures as on 20-10-2021: Minimum temperatures are appreciably above normal (3.1°C to 5.0°C) at most places over Jharkhand; at many places over East Uttar Pradesh; at a few places over West Uttar Pradesh, Odisha, Bihar, Rayalaseema, Coastal Andhra Pradesh & Yanam and Nagaland, Manipur, Mizoram & Tripura; at isolated places over Punjab, Madhya Pradesh, Assam & Meghalaya and Tamilnadu, Puducherry & Karaikal; above normal (1.6°C to 3.0°C) at most places over Uttarakhand and Chhattisgarh; at many places over South Interior Karnataka; at a few places over Andaman & Nicobar Islands and Kerala & Mahe and at isolated places over Himachal Pradesh and Madhya Maharashtra and near normal over rest parts of the country. Today, the lowest minimum temperature of 15.4°C reported at Udaipur (East Rajasthan) over the plains of the country.

Weather Warning during the next 5 days (IMD)

- 20 October (Day 1): Heavy to very heavy rainfall with extremely heavy falls very likely at isolated places over SubHimalayan West Bengal & Sikkim; Heavy to very heavy rainfall very likely at isolated places over Tamilnadu, Puducherry & Karaikal, Arunachal Pradesh and Assam & Meghalaya; heavy rainfall at isolated places over Bihar, Gangetic West Bengal, Nagaland, Manipur, Mizoram & Tripura and Kerala & Mahe. Thunderstorm accompanied with lightning very likely at isolated places over Bihar, Jharkhand, West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh & Yanam, Rayalaseema, Lakshadweep, Tamilnadu, Puducherry & Karaikal and Kerala & Mahe. Squally weather (wind speed reaching 40-50 kmph) very likely over Lakshadweep-Maldives areas, Gulf of Mannar, Comorin area and along & off Kerala coast. Fishermen are advised not to venture into these areas.
- 21 October (Day 2): Heavy to very heavy rainfall very likely at isolated places over Tamilnadu, Puducherry & Karaikal and Kerala & Mahe and heavy rainfall at isolated places over Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Arunachal Pradesh and Nagaland, Manipur, Mizoram & Tripura. Thunderstorm accompanied with lightning very likely at isolated places over Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Tamilnadu, Puducherry & Karaikal, Lakshadweep and Kerala & Mahe. Squally weather (wind speed reaching 40-50 kmph) very likely over Lakshadweep-Maldives areas, Gulf of Mannar, Comorin area and along & off Kerala coast. Fishermen are advised not to venture into these areas.
- 22 October (Day 3): Heavy rainfall very likely at isolated places over Coastal & South Interior Karnataka, Tamil Nadu, Puducherry & Karaikal and Kerala &

Mahe. Thunderstorm accompanied with lightning very likely at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad, Punjab, Rayalaseema, Coastal & South Interior Karnataka, Tamilnadu, Puducherry & Karaikal, Lakshadweep and Kerala & Mahe.

- 23 October (Day 4): Heavy rainfall likely at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad, Punjab, Coastal & South Interior Karnataka, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe. Thunderstorm accompanied with lightning, hail & gusty winds (speed 30-40 kmph) likely at isolated places over Punjab; with lightning & gusty winds (speed 30-40 kmph) at isolated places over Haryana, Chandigarh and West Rajasthan; with lightning at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad, Himachal Pradesh, Coastal Andhra Pradesh & Yanam, Rayalaseema, Coastal & South Interior Karnataka, Tamilnadu, Puducherry & Karaikal, Lakshadweep and Kerala & Mahe.
- 24 October (Day 5): Heavy rainfall likely at isolated places over Himachal Pradesh, Coastal & South Interior Karnataka, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe. Thunderstorm accompanied with lightning likely at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad, Himachal Pradesh, Punjab, Coastal Andhra Pradesh & Yanam, Rayalaseema, Coastal & South Interior Karnataka, Tamilnadu, Puducherry & Karaikal, Lakshadweep and Kerala & Mahe.
- The weather outlook for seven days i.e., 20 Oct to 28 Oct 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)

Assam

Weather condition:

Weather during the last week was generally cloudy. Daily average maximum temperature was 32.7°C which was 1.5°C above normal and the average daily minimum temperature was 23.9°C which was 0.5°C below normal for the week. Total BSSH was 237.9 hrs with an average of 6.3 hrs/day. The daily average evaporation rate was 2.3 mm/day and the average daily wind speed during the week was 1.7 kmph. Daily average RH during morning and afternoon hour was 92.9% and 72.7%, respectively.

Contingency measure:

- Sali rice: At milky stage of rice gundhi bug may damage the crop. To control gundhi bug infestation, it is advised to go for application of Neemazal @ 2ml/lit of water during fair weather. Holding fires around the field at night hours also reduces the bugs population.
- Rapeseed & Mustard (Land preparation): Continue land preparation for rapeseed and mustard cultivation. Early Sowing of the crop helps to escape the attack of aphids. Collect recommended varieties like TS-38, M-27, TS-36, Jeuti, TS-46, TS-67, TM-2, PM-26, PM-27 etc.
- Kharif pulses (green and black gram): Sowing may be initiated on depending upon the soil moisture conditions. Post sowing irrigation may be provided if there is no rainfall for a longer period of time. In case of already established crop field, provide surface drainage to avoid water stagnation. Select new late varieties like Beki and Kolong for black gram cultivation under delayed situation. Sowing may be completed within the month of September itself.
- Cole crops (Cauliflower, Cabbage, knolkhol, broccoli): Continue nursery sowing of mid season varieties under poly house condition or temporary sheds. Seed rate is 40 g/bigha. Thoroughly mix the soil with malathion 5% dust @ 20g/ 10m² in order to protect the seedlings from soil borne insects and also drench the bed with 0.1% solution of captan to make soil free from diseases. Collect varieties like- Improved Japanese, Pusa Synthetic, Pusa Snowball for cauliflower cultivation; Green sprouting medium for broccoli cultivation; Golden acre, Pride of India, Pusa Mukta etc. for cabbage cultivation and White Vienna for knolkhol cultivation.
- Livestock (various): Feed the milch cows with protein, vitamin and mineral feed supplements in addition to green fodder for obtaining higher milk production.
- Poultry (various): Higher temperatures during summer affect poultrys nutrient balance with consequences on production. If higher temperatures continue, birds will typically suffer from energy loss, dehydration and physiological stress. Performance falls and mortality increases. As temperature is rising day by day, poultry entrepreneur are advised to provide Electrolyte Supplement With Vitamin C & Probiotics. And also provides cooling facilities to the poultry birds for reducing dehydration during this heat stress condition.
- Fishery: Provide supplementary feeds in the fisheries with rice bran and mustard oil cake mixed in the ratio of 1:1 in bags at different depths of water.

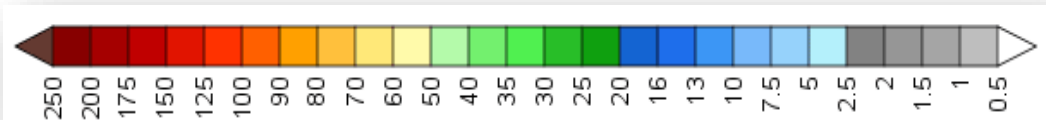
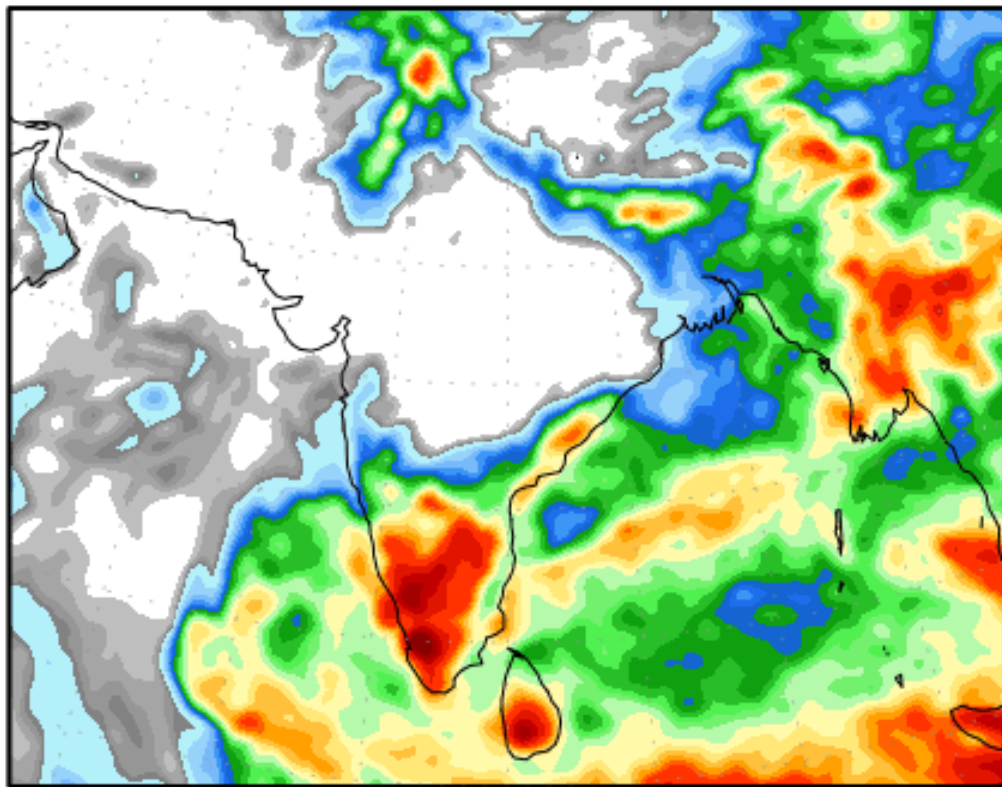


Figure:2. Precipitation forecast for 20 Oct to 28 Oct 2021 (Source: NOAA NCEP).

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