# All India Coordinated Research Project on Agrometeorology CRIDA, Santoshnagar, Hyderabad – 500 059

#### **Daily Crop Weather Information as on 13 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, Hanamkonda, Aurangabad, Silvasa, Lat. 20.0°N/Long. 65.0°E and Lat. 20.0°N/Long. 60.0°E. Conditions are becoming favourable for further withdrawal of southwest monsoon from some more parts of Maharashtra & Telangana and some parts of Karnataka during next 24 hours.
- A cyclonic circulation lies over Eastcentral Bay of Bengal & neighbourhood and extends upto mid-tropospheric levels tilting southwestwards with height. Under its influence, a Low Pressure Area is likely to form over eastcentral Bay of Bengal & neighbourhood during next 24 hours. It is likely to move west-northwestwards and reach south Odisha-north Andhra Pradesh coasts during subsequent 24 hours. Under its influence; Light to moderate rainfall at most places with isolated thunderstorm (wind speed 40-50 kmph) and heavy falls very likely over Andaman & Nicobar Islands during next 4 days. Rainfall intensity very likely to increase over East India and adjoining Central India from 15th October.
- A cyclonic circulation lies over Eastcentral Arabian Sea off Karnataka coast extending upto mid-tropospheric levels and an east-west trough runs roughly along 13°N across the cyclonic circulation over Eastcentral Arabian Sea off Karnataka coast and the cyclonic circulation over Eastcentral Bay of Bengal. Under its influence: Fairly widespread to widespread light to moderate rainfall very likely over southern peninsular India during next 4-5 days. Isolated heavy to very heavy rainfall very likely over Coastal & South Interior Karnataka, Kerala & Mahe and Tamil Nadu during next 4 days and isolated heavy rainfall over Lakshadweep on 13th and over Rayalaseema during 13th-14th October, 2021.
- Under the influence of lower level easterlies, fresh spell of rainfall with thunderstorm & lightning likely over Northwest India from 16th October. Isolated heavy rainfall also likely over Himachal Pradesh, Uttarakhand and Uttar Pradesh on 17th October, 2021.
- The images showing the latest satellite picture in the figure. 1.

#### **Main Weather Observations (IMD)**

- Rainfall/Thundershowers observed (0830 hrs IST of yesterday to 0830 hrs IST of today): at most places over Andaman & Nicobar Islands, Coastal & South Interior Karnataka and Kerala & Mahe; at many places over Tamilnadu, Puducherry & Karaikal and Lakshadweep; at a few places over Konkan & Goa, Rayalaseema and at isolated places over Nagaland, Manipur, Mizoram & Tripura, Sub-Himalayan West Bengal & Sikkim, Odisha, Jharkhand, Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad, West Madhya Pradesh, Gujarat state, Madhya Maharashtra, Marathwada, Chhattisgarh, Coastal Andhra Pradesh & Yanam, Telangana and North Interior Karnataka.
- Extremely Heavy Rainfall (0830 hrs IST of yesterday to 0830 hrs IST of today) observed at isolated places over Coastal Karnataka; Heavy Rainfall at isolated places over Andaman & Nicobar Islands, Madhya Maharashtra, Coastal Andhra Pradesh & Yanam, Tamilnadu, Puducherry & Karaikal, Interior Karnataka and Kerala & Mahe.
- Thunderstorm observed (0830 hrs IST of yesterday to 0830 hrs IST of today): at isolated places over Gujarat State, Konkan & Goa, Tripura, Coastal Karnataka, Rayalaseema and Tamilnadu, Puducherry & Karaikal.
- Maximum Temperature Departures as on 12-10-2021: Maximum temperatures were markedly above normal (5.1°C or more) at most places over Assam & Meghalaya; at isolated places over Sub-Himalayan West Bengal, Arunachal Pradesh and Nagaland, Manipur, Mizoram & Tripura; appreciably above normal (3.1°C to 5.0°C) at many places over Uttrakhand; at a few places over Himachal Pradesh; above normal (1.6°C to 3.0°C) at most places over Uttar Pradesh, Jharkhand Bihar, East Madhya Pradesh, Coastal Andhra Pradesh & Yanam and Gangetic West Bengal. They were markedly below normal (- 5.1°C or less) at isolated places over Kerala & Mahe; below normal (-1.6°C to -3.0°C) at a few places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Lakshadweep and Andaman & Nicobar Islands; at isolated places over Tamilnadu, Puducherry & Karaikal and Madhya Maharashtra and near normal over rest parts of the country. Yesterday, the highest maximum temperature of 37.2°C was reported at Barmer (West Rajasthan).
- Minimum Temperature Departures as on 13-10-2021: Minimum temperatures are appreciably above normal (3.1°C to 5.0°C) at many places over Punjab, East Uttar Pradesh, Nagaland, Manipur, Mizoram & Tripura and Arunachal Pradesh; at a few places over Rajasthan, West Madhya Pradesh and Bihar; above normal (1.6°C to 3.0°C) at most places over Sub-Himalayan West Bengal & Sikkim, Assam &

Meghalaya and Chhattisgarh; at many places over Himachal Pradesh, Uttarakhand, West Uttar Pradesh, Gujarat state, Jharkhand, Odisha, Gangetic west Bengal and Andaman & Nicobar Islands; at a few places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad, Haryana, Chandigarh & Delhi, East Madhya Pradesh, Coastal Andhra Pradesh & Yanam, South Interior Karnataka and Rayalaseema; at isolated places over Vidarbha, Madhya Maharshtra and Tamilnadu, Puducherry & Karaikal. They were below normal (-1.6 to -3.0) at isolated places over Kerala & Mahe and near normal over rest parts of the country. Today, the lowest minimum temperature of 16.1°C is reported at Mandla (East Madhya Pradesh) over the plains of the country.

#### Weather Warning during the next 5 days (IMD)

- 13 October (Day 1): Heavy to very heavy rainfall very likely at isolated places over Coastal & South Interior Karnataka and Kerala & Mahe; heavy rainfall at isolated places over Andaman & Nicobar Islands, Rayalaseema, and Tamilnadu, Puducherry & Karaikal and Lakshadweep. Thunderstorm accompanied with lightning & gusting wind (speed reaching 40-50 kmph) very likely at isolated places over Andaman & Nicobar Islands and with lightning at isolated places over Gangetic West Bengal, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Coastal Andhra Pradesh & Yanam, Rayalaseema, Karnataka, Kerala & Mahe and Tamilnadu, Puducherry & Karaikal. Squally weather (wind speed reaching 40-50 kmph) very likely over Andaman Sea, Southeast Arabian Sea along & off KeralaKarnataka coasts and Lakshadweep area. Fishermen are advised not to venture into these areas.
- 14 October (Day 2): Heavy to very heavy rainfall very likely at isolated places over Coastal & South Interior Karnataka, Kerala & Mahe and Tamilnadu, Puducherry & Karaikal and heavy rainfall at isolated places over Andaman & Nicobar Islands and Rayalaseema. Thunderstorm accompanied with lightning & gusting wind (speed reaching 40-50 kmph) very likely at isolated places over Andaman & Nicobar Islands and with lightning at isolated places over Gangetic West Bengal, Odisha, Coastal Andhra Pradesh & Yanam, Rayalseema, Karnataka, Kerala & Mahe and Tamilnadu, Puducherry & Karaikal. Squally weather (wind speed reaching 40-50 kmph) very likely over Andaman Sea, Southeast Arabian Sea along & off KeralaKarnataka coasts, Lakshadweep area, Comorin area and Gulf of Mannar. Fishermen are advised not to venture into these areas.
- 15 October (Day 3): Heavy to very heavy rainfall likely at isolated places over Kerala & Mahe and Tamilnadu, Puducherry & Karaikal; heavy rainfall at isolated places over Andaman & Nicobar Islands and Coastal & South Interior Karnataka.

Thunderstorm accompanied with lightning & gusting wind (speed reaching 40-50 kmph) likely at isolated places over Andaman & Nicobar Islands and with lightning at isolated places over Chhattisgarh, Bihar, Jharkhand, Gangetic West Bengal, Odisha, Coastal Andhra Pradesh & Yanam, Rayalaseema, Kerala & Mahe and Tamilnadu, Puducherry & Karaikal. Squally weather (wind speed reaching 40-50 kmph) very likely over Andaman Sea, Southeast Arabian Sea along & off KeralaKarnataka coasts, Lakshadweep area, Comorin area and Gulf of Mannar. Strong winds (wind speed reaching 40-50 kmph) very likely over Southwest Bay of Bengal. Fishermen are advised not to venture into these areas.

- 16 October (Day 4):Heavy to very heavy rainfall likely at isolated places over Tamilnadu, Puducherry & Karaikal and heavy rainfall at isolated places over Odisha, Andaman & Nicobar Islands, Kerala & Mahe, Coastal & South Interior Karnataka, Coastal Andhra Pradesh & Yanam. Thunderstorm accompanied with lightning & gusting wind (speed reaching 40-50 kmph) likely at isolated places over Andaman & Nicobar Islands and with lightning at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, East Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Gangetic West Bengal, Odisha, Bihar, Jharkhand, Marathwada, Kerala & Mahe, Tamilnadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam and Telangana. Squally weather (wind speed reaching 40-50 kmph) very likely over Andaman Sea, Comorin area and Gulf of Mannar. Strong winds (wind speed reaching 40-50 kmph) very likely over Southwest Bay of Bengal. Fishermen are advised not to venture into these areas.
- 17 October (Day 5):Heavy rainfall likely at isolated places over Himachal Pradesh, Uttarakhand, Uttar Pradesh, Gangetic West Bengal, Odisha, Tamilnadu, Puducherry & Karaikal and Coastal Andhra Pradesh & Yanam. Thunderstorm accompanied with lightning & gusting wind (speed reaching 30-40 kmph) likely at isolated places over Gangetic West Bengal and with lightning at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, East Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Jharkhand, Marathwada, Kerala & Mahe, Tamilnadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam and Telangana.
- The weather outlook for seven days i.e., 13 Oct to 21 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)**

#### Himachal pradesh

#### Weather condition:

The maximum and minimum temperature ranged between 24.5 to 27.0 °C and 14.5 to 19.0 °C which was above normal by 0.3 to 1.4 °C and 0.3 to 3.3 °C, respectively. 55.0 mm rainfall was received during the week against the normal of 10.4 mm. The relative humidity varied between 63-100 % and sunshine hours between 2.0-10.0 hrs/day with variable sky conditions (Octa 4-8). The evaporation rate varied 2.0-4.3 mm per day.

### **Contingency measure:**

- Kharif Crops: Rice: Rice crop is ready to harvest. Harvesting of the crop is advised after proper sun drying store at proper grain moisture.
- RABI: Before rabi crop sowing after cleaning fields add decomposed FYM or compost before sowing of crops as it improves the physical and biological Advisory for coming 5 Days: There is very light rainfall expected in the region. Maximum temperature 30-31°C and minimum temperatures 17-18 °C is expected during next five days. Relative humidity will remain between 55-83 per cent. The average wind speed in next five days will remain 10 km/h. No clouds are expected. www.hillagric.ac.in/info/kisano\_ke\_liye\_soochna, email: ranars66@rediffmail.comPh.No.: +91- 1894232245 Fax: 91-1894 230406 properties of soil and thus increases the water retention capacity as well as nutrient status of the soil.
- Fodder Crops: The hay making process should be started and grasses may cut before flowering and dry during sunny days. Sowing of fodder crops such as oats and Lucerne is advised. Mixing of gobhi sarson seeds with oats and barseem is advised.
- Vegetable Crops: Ensure proper drainage in vegetable crops. Use Light Trap to
  destroy harmful pests. For this, in a plastic tub or a large pot, mix water and a
  little kerosene or few ml insecticide and burn a bulb and keep it in the middle of
  the field at night. By attracting insects from light, they will fall on the same
  solution and die.
- Cauliflower: Advised to sow nursery of mid season cauliflower and cabbage in poly house in mid hills and lower region and advised transplanting of ageti cauliflower and cabbage nursery in fields.

- Tomato, Chilli, Capsicum And Brinjal: Weeding and hoeing in all crops and vegetables should be done for optimum growth. Shoot and fruit borer in brinjal and fruit borer in tomato crop is expected. Infested fruits and shoots should be collected and buried inside the soil. Installation of bird perches in tomato is advised to control fruit borer insect. Installation of pheromone trap @ 2-3 traps per acre of crop field is advised for monitoring the fruit borer. If pest population is high, spraying of Chlorantraniliprole 18.5SC @ 0.4 ml/l is advised. Constant monitoring of the chilli crop against attack of mites and jassid is advised.
- Radish, Turnip & Peas: Sowing of turnip and radish in lower rainfed areas are advised. In mid hill region nursery sowing of Chinese cabbage and direct sowing of radish, carrot, broccoli, lettuce is advised. Field preparation should be started for early pea and farmers are advised to do arrangement for quality seeds.
- Pea: Field preparation should be started for early pea and farmers are advised to do arrangement for quality seeds. Treat the seed with Bavistin 50 WP (2.5 g/kg of seed) before sowing.
- Poly House Agriculture: Open the side and top for temperature control. During rains top and side bent should be closed. Incidence of white fly and mites expected in polyhouse. For control of these insect pests in polyhouses, spray of Spiromesifen 22.9 SC @ 1ml/l is recommended. Vegetables harvesting one week after spraying is advised. Advised to sow nursery of mid season cauliflower and cabbage in poly house in mid hills and lower region and advised transplanting of ageti cauliflower and cabbage nursery in fields.
- Tea: Advised picking in tea at 8-10 days interval to maintain the quality and productivity. Lopping of shade tress advised in tea orchards. Weather is conducive for attack of blister blight in shady and high humid areas, for precautionary measure spray calixin @ 0.2% or folicure 0.1% and if attack is severe then repeats spray at 15 days with alternate spray of blitox 0.3% at seven days interval.
- Livestock: 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 @ 2 ml per litre in cowshed Give mixture of hay & green fodder. The weather is suitable for the attack of pink eye disease in newly born calves, for control prepare the solution of 1% boric acid in boiled water and wash eyes at regular interval of three hours. Give mixture of hay & green fodder. Advised not to allow animals to eat lantana these days.

- Poultry: Make sure to deworm your older flocks every month against roundworms. 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 formaline 40% @ 1litre in 9 litres of water in outside or surrounding of farm. Provide vitamin A and vitamin B complex with water. Ensure proper space for egg laying of birds and provide 14-to 16 hours light including day light. Normal feeding schedule should be continued and add mineral in the diet if stress is seen.
- Mushrooms: Maintain room temperature 18-22oC and relative humidity around 85% for successful cultivation.
- Horticulture: Keep the basins of the plants free from weeds and well drained. The new growth appearing below bud union may be cut. If a termite outbreak appears on the trees, spray Chlorpyriphos 20 EC @ 3ml/l. Monitor foliar pest on plants of Citrus species. Spray Chlorantraniliprole 18.5SC @ 0.4 ml/l or lambdacyhalothrin 4.90CS @0.8 ml/l for pomegranate butterfly. Advised recommended spray of chemicals for control of citrus canker.

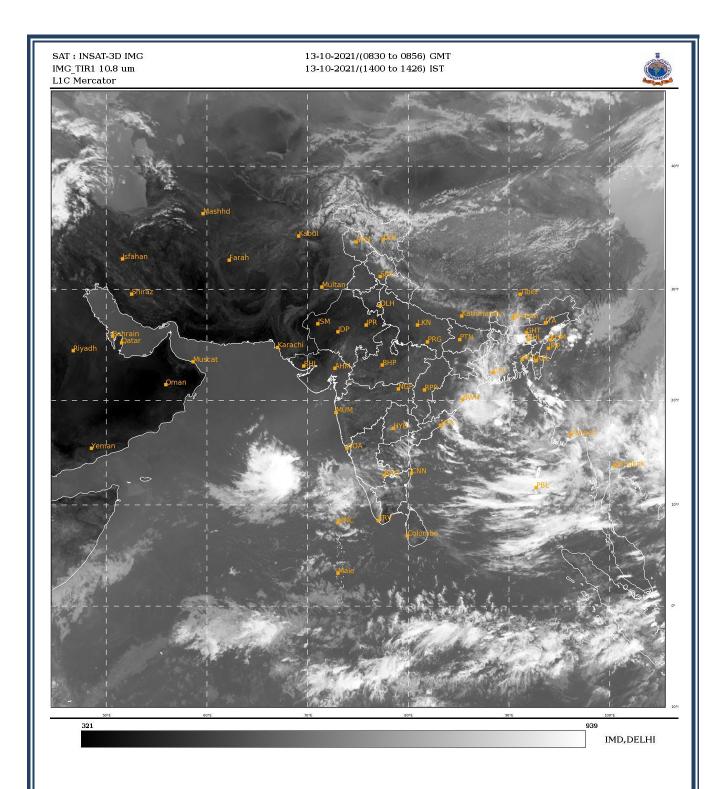


Figure: 1. Latest available satellite picture as on 13 Oct 2021 at 1426 Hrs (IST). (Source: IMD).

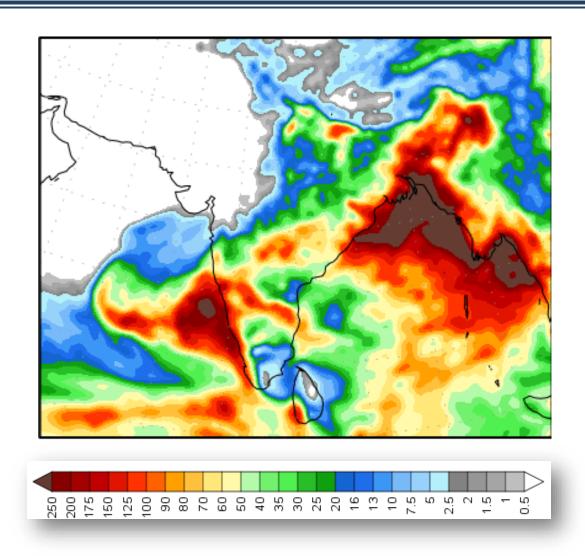


Figure: 2. Precipitation forecast for 13 Oct to 21 Oct 2021 (Source: NOAA NCEP).

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