

# **All India Coordinated Research Project on Agrometeorology**

## **CRIDA, Santoshnagar, Hyderabad – 500 059**

### **Daily Crop Weather Information as on 10 Jun 2022**

**Attention: Rajiv Maheshwari, OSD, ICAR**

#### **Significant Weather Features (IMD)**

- Advancement of Southwest Monsoon:
- Southwest Monsoon has further advanced into some more parts of central Arabian Sea, entire Goa, some parts of Konkan and some more parts of Karnataka.
- The Northern Limit of Monsoon (NLM) now passes through Lat. 16°N/ Long. 60°E, Lat. 16°N/ Long. 70°E, Vengurla, Chikmagalur, Bengaluru, Puducherry, Lat. 14°N/ Long. 84°E, Lat. 17.0°N/ Long. 87°E, Lat.20.0°N/89.5°E, Lat.22.0°N/90°E, Lat.25.0°N/89°E, Siliguri and 27.50°N/88°E.
- Conditions are favorable for further advance of monsoon into some more parts of central Arabian Sea, some more parts of south Maharashtra, Karnataka, remaining parts of Tamilnadu, some parts of south Andhra Pradesh and some more parts of westcentral & northwest Bay of Bengal during next 48 hours.
- Conditions would continue to become favourable for further advance of monsoon into more parts of Maharashtra, entire Karnataka, more parts of Andhra Pradesh and more parts of westcentral & northwest Bay of Bengal during subsequent 2 days.
- Rainfall/thunderstorm Forecast & Warnings:
- Under the influence of strong southwesterly winds from Bay of Bengal to northeast & adjoining east India in lower tropospheric levels:
  - o Isolated heavy to very heavy rainfall very likely over Arunachal Pradesh, Assam & Meghalaya and Sub-Himalayan West Bengal & Sikkim during next 5 days and heavy rainfall over Nagaland, Manipur, Mizoram & Tripura during 12th-14th June. Isolated extremely heavy rainfall also likely over Assam & Meghalaya during 11th-14th June.
  - o Isolated/scattered rainfall with thunderstorm/lightning/gusty winds very likely over Bihar, Jharkhand, Odisha and Gangetic West Bengal during next 5 days.
  - o Isolated/scattered rainfall with thunderstorm/lightning/gusty winds very likely over Madhya Pradesh, Vidarbha and Chhattisgarh during next 5 days.

- o Isolated hailstorm also likely over Vidarbha and Chhattisgarh today.
- Under the influence of strong westerly/southwesterly winds along the west coast in lower tropospheric levels:
  - o Isolated heavy rainfall very likely over Tamilnadu on 10th; Coastal Karnataka during 10th-13th and over Kerala & Mahe during 10th- 12th June, 2022.
  - o Isolated heavy to very heavy rainfall also likely over Konkan & Goa during next 5 days. Heat wave warnings: o Heat wave conditions in isolated places very likely over Jharkhand during 10th-12th; Punjab, Haryana-Delhi, Uttar Pradesh, north Rajasthan on 10th & 11th June; Northeast Madhya Pradesh, Chhattisgarh, Coastal Andhra Pradesh, Telangana, interior Odisha on 10th June.
- The images showing the latest satellite picture in the figure. 1.

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

- Rainfall/thundershower observed (from 0830 hours IST of yesterday to 0830 hours IST of today): at most places over Arunachal Pradesh, Assam & Meghalaya and Coastal Karnataka; at many places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, West Bengal & Sikkim, Nagaland, Manipur, Mizoram & Tripura, Maharashtra, Kerala & Mahe and Lakshadweep; at a few places over Andaman & Nicobar Islands and at isolated places over Himachal Pradesh, Punjab, East Rajasthan, East Madhya Pradesh, Bihar, Odisha and Tamilnadu, Puducherry & Karaikal.
- Isolated Very Heavy rainfall occurred over Sub-Himalayan West Bengal & Sikkim and heavy rainfall over Assam & Meghalaya, Arunachal Pradesh and Tamilnadu.
- Thunderstorm observed (from 0830 hour IST of yesterday to 0830 hours IST of today): at isolated places over Jammu & Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh, Odisha, West Bengal & Sikkim, Bihar, Jharkhand, Assam & Meghalaya, Tripura, Telangana, Andhra Pradesh, Konkan & Goa, Madhya Maharashtra, Marathwada and Kerala & Mahe.
- Yesterday, heat wave conditions prevailed at isolated pockets over Northwest Rajasthan, Himachal Pradesh, Haryana, Delhi, Jharkhand, Odisha, Chhattisgarh, Punjab and East Uttar Pradesh.
- Maximum Temperature Departures (as on 09-06-2022): Maximum temperatures were markedly above normal (5.1°C or more) at a few places over Punjab and Jharkhand; appreciably above normal (3.1°C to 5.0°C) at most places over Uttarakhand, Haryana, Chandigarh & Delhi, Chhattisgarh; at many places over Himachal Pradesh, East Uttar Pradesh, Kerala & Mahe; at a few places over Jammu, Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, West Rajasthan, East

Madhya Pradesh, Odisha, Coastal Andhra Pradesh & Yanam; at isolated places over Vidarbha; above normal (1.6°C to 3.0°C) at many places over Telangana; at a few places over West Madhya Pradesh, Marathwada, Tamilnadu, Puducherry & Karaikal; at isolated places over Konkan & Goa, Lakshadweep and Gangetic West Bengal and near normal over rest parts of the country. Yesterday, the highest maximum temperature of 47.1°C was reported at Faridabad (Haryana).

- Minimum Temperature Departures (as on 10-06-2022): Minimum temperatures are appreciably above normal (3.1°C to 5.0°C) at most places over Chhattisgarh; at many places over Punjab, Haryana, Chandigarh & Delhi, East Madhya Pradesh and Telangana; at a few places over Vidarbha and at isolated places over Himachal Pradesh, East Rajasthan, West Uttar Pradesh, West Madhya Pradesh, Coastal Andhra Pradesh & Yanam and Odisha; above normal (1.6°C to 3.0°C) at most places over Uttarakhand; at many places over East Uttar Pradesh and Jharkhand; at a few places over West Rajasthan, Sub-Himalayan West Bengal & Sikkim, Kerala & Mahe, Tamilnadu, Puducherry & Karaikal and Rayalaseema and at isolated places over Gangetic West Bengal and near normal over rest parts of the country. Today, the lowest minimum temperature of 20.5°C reported at Chitradurga (South Interior Karnataka) over the plains of the country.

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

- 10 June (Day 1): Heavy to very heavy rainfall at isolated places very likely over Assam & Meghalaya; heavy rainfall at isolated places over SubHimalayan West Bengal & Sikkim, Arunachal Pradesh, Konkan & Goa, Coastal Karnataka, Tamilnadu, Puducherry & Karaikal and Kerala & Mahe. Thunderstorm accompanied with lightning/gusty winds (speed 40-50 kmph) & hail at isolated places very likely over Chhattisgarh and Vidarbha; gusty winds (speed 30-40 kmph) at isolated places over Jammu-Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Haryana, Chandigarh & Delhi, East Rajasthan, Jharkhand, Gangetic West Bengal, Andaman & Nicobar Islands, Coastal Andhra Pradesh & Yanam and Telangana and with lightning at isolated places over Himachal Pradesh, Uttarakhand, Punjab, West Uttar Pradesh, Madhya Pradesh, Bihar, Odisha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Gujarat state, Konkan & Goa, Madhya Maharashtra, Marathwada, Coastal Karnataka, Tamilnadu, Puducherry & Karaikal, Kerala & Mahe and Lakshadweep. Heat wave conditions in isolated places very likely over Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, Rajasthan, East Madhya Pradesh, Vidarbha, Chhattisgarh, Jharkhand, Odisha, Coastal Andhra Pradesh & Yanam and Telangana. Squally weather (wind speed 40-50 kmph gusting to 60 kmph) very likely over east central Arabian Sea, along and off south Maharashtra, Goa

coasts, north west Bay of Bengal and adjoining west central Bay of Bengal. Strong winds of 40-50 kmph gusting to 60 kmph likely over south west Arabian Sea. Fishermen are advised not to venture into these seas.

- 11 June (Day 2): Heavy to very heavy rainfall with extremely heavy falls at isolated places very likely over Meghalaya; heavy to very heavy rainfall at isolated places over Arunachal Pradesh, Assam, Konkan & Goa and heavy rainfall at isolated places over Sub-Himalayan West Bengal & Sikkim, Coastal Karnataka and Kerala & Mahe. Thunderstorm accompanied with lightning/gusty winds (speed 40-50 kmph) & hail at isolated places very likely over Chhattisgarh; with lightning/gusty winds (speed 40-50 kmph) at isolated places over West Madhya Pradesh; with gusty winds (speed 30-40 kmph) at isolated places over Haryana, Chandigarh & Delhi, East Rajasthan, Vidarbha, Jharkhand, Gangetic West Bengal, Coastal Andhra Pradesh & Yanam and with lightning at isolated places over Jammu-Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Punjab, East Madhya Pradesh, Bihar, Odisha, Gujarat state, Konkan & Goa, Madhya Maharashtra, Marathwada, Telangana, Rayalaseema, Coastal & South Interior Karnataka, Tamilnadu, Puducherry & Karaikal, Kerala & Mahe and Lakshadweep. Heat wave conditions in isolated places very likely over Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, Rajasthan, Jharkhand. Squally weather (wind speed 40-50 kmph gusting to 60 kmph) very likely over east central Arabian Sea, along and off south Maharashtra, Goa, Kerala, Karnataka coasts, Lakshadweep area, east central Bay of Bengal and adjoining north east Bay of Bengal. Strong winds of 40-50 kmph gusting to 60 kmph likely over south west Arabian Sea. Fishermen are advised not to venture into these seas.
- 12 June (Day 3): Heavy to very heavy rainfall with extremely heavy falls at isolated places very likely over Assam & Meghalaya; heavy to very heavy rainfall at isolated places over Arunachal Pradesh, Konkan & Goa and heavy rainfall at isolated places over Sub-Himalayan West Bengal & Sikkim, Nagaland, Manipur, Mizoram & Tripura, Coastal Karnataka and Kerala & Mahe. Thunderstorm accompanied with lightning/gusty winds (speed 40-50 kmph) at isolated places likely over West Madhya Pradesh; with gusty winds (speed 30-40 kmph) at isolated places over East Rajasthan, East Madhya Pradesh, Vidarbha, Coastal Andhra Pradesh & Yanam and with lightning at isolated places over Jammu-Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Chhattisgarh, Bihar, Odisha, Gujarat state, Konkan & Goa, Madhya Maharashtra, Marathwada, Telangana, Rayalaseema, Karnataka, Tamilnadu, Puducherry & Karaikal, Kerala & Mahe and Lakshadweep. Heat wave conditions in isolated places very likely over Jharkhand. Squally weather (wind speed 40-50 kmph gusting to 60 kmph) very

likely over east central Arabian Sea, along and off Maharashtra, Goa, Karnataka, Kerala coasts, south east Arabian Sea, Lakshadweep area, east central Bay of Bengal and adjoining north east Bay of Bengal. Strong winds of 40-50 kmph gusting to 60 kmph likely over south west Arabian Sea. Fishermen are advised not to venture into these seas.

- 13 June (Day 4): Heavy to very heavy rainfall with extremely heavy falls at isolated places very likely over Assam & Meghalaya; heavy to very heavy rainfall at isolated places over Arunachal Pradesh and heavy rainfall at isolated places over Sub-Himalayan West Bengal & Sikkim, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa and Coastal Karnataka. Thunderstorm accompanied with lightning/gusty with gusty winds (speed 30-40 kmph) at isolated places over East Rajasthan, East Madhya Pradesh, Vidarbha, Coastal Andhra Pradesh & Yanam and with lightning at isolated places over West Madhya Pradesh, Chhattisgarh, Bihar, Odisha, Gujarat state, Konkan & Goa, Madhya Maharashtra, Marathwada, Telangana, Coastal & North Interior Karnataka, Kerala & Mahe and Lakshadweep. Squally weather (wind speed 40-50 kmph gusting to 60 kmph) very likely over east central Arabian Sea, along and off south Maharashtra, Goa, Karnataka, north Kerala coasts, Lakshadweep area and east central Bay of Bengal. Strong winds of 40-50 kmph gusting to 60 kmph likely over south west Arabian Sea. Fishermen are advised not to venture into these seas.
- 14 June (Day 5): Heavy to very heavy rainfall with extremely heavy falls at isolated places very likely over Assam & Meghalaya; heavy to very heavy rainfall at isolated places over Arunachal Pradesh, Sub-Himalayan West Bengal & Sikkim and heavy rainfall at isolated places over Nagaland, Manipur, Mizoram & Tripura and Konkan & Goa. Thunderstorm accompanied with lightning/gusty with gusty winds (speed 30-40 kmph) at isolated places over East Rajasthan, Jharkhand, Coastal Andhra Pradesh & Yanam and with lightning at isolated places over Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Gangetic West Bengal, Odisha, Telangana, Coastal & North Interior Karnataka, Kerala & Mahe and Lakshadweep. Squally weather (wind speed 40-50 kmph gusting to 60 kmph) very likely over east central Arabian Sea. Strong winds of 40-50 kmph gusting to 60 kmph likely over south west Arabian Sea. Fishermen are advised not to venture into these seas.
- The weather outlook for seven days i.e., 10 Jun to 18 Jun 2022 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 33.0 to 35.0 °C and 20.5 to 23.7 °C which was above normal by 1.7 to 4.0 °C and 0.2 to 3.4 °C, respectively. No rainfall was received during the week against the normal of 25.1 mm. The relative humidity varied between 21-53 % and sunshine hours between 8.5-10.5 hrs/day with variable sky conditions (Octa 0-6). The evaporation rate varied 8.7-11.2 mm per day.

#### **Contingency measure:**

- **Stored Grains:** In grain store bins put one pouch of celhpos (3g) or quickphos (12g) or Fumino pouch in a wet cloth in the middle of bin and keep the bin airtight for some time to control stored grains pests.
- **Kharif Crops:** After harvesting of rabi crops farmers are advised to test their soil from certified agencies and to do laser leveling in their field if required. ploughing of fields after harvesting of rabi crops is advised so that eggs and pupating stages of insects and weed seeds are destroyed.
- **Rice:** Farmers are advised to prepare the field for paddy nursery and procure the certified seeds from agriculture department. Advised sowing of Paddy nursery and ensure proper soil moisture before nursery sowing. Seed treatment of fungal disease with recommended fungicides.
- **Maize:** Maize sowing advised after ensuring soil moisture or after rains. Spray recommended herbicide within 48 hours of sowing for control of weeds.
- **Fodder:** Sow maize crop as fodder crop along with cowpea or soybean can be done in the irrigated areas.
- **Vegetable Crops:** High temperature expected, farmers are advised for harvesting of mature vegetables at morning and evening and after harvesting of crops keep it in the shade. If no rains are received then apply light and frequent irrigation in morning and evening which other-wise lead to poor pollination and thus drop in yield of the crop.
- **Vegetables:** Sowing of frenchbean, coriander, okra is advised. At the time of sowing, add about 100 q well rotten FYM, 156 kg IFFCO (12:32:16), 50 kg MOP and 25 60 kg urea per ha in okra and 200 q FYM and 313 kg IFFCO and 25 kg urea in French bean. Pre emergence spray of Lasso @ 3.0 litre per 750 lt. is advised. Farmers are advised to transplant the tubes of cucumber, bitter gourd, round gourd, ridge gourd, summer squash, and sponge gourd. Appropriate time for transplanting of tomato, brinjal, chilli and capsicum. Leaf eating insect-pest



may occur during early crop stages of okra, brinjal, frenchbean and cucurbitaceous crops. For management, spray malathion 50 EC @ 750 ml in 750 litres of water for one hectare. Take care of damping off while raising seedlings of capsicum, tomato and chillies. Drenching of seed beds with 25 g Mancozeb or 5g Carbendazim in 10 lt. of water just at the appearance of the symptoms. In the mid-hills it is appropriate time to transplant early varieties of cauliflower. In these areas, it is the appropriate time to plant tomato, brinjal, capsicum and Frenchbean. Apply approved chemicals to prevent damping-off disease in tomato and brinjal. Spray Malathion 1ml per lt. of water to control red pumpkin beetle.

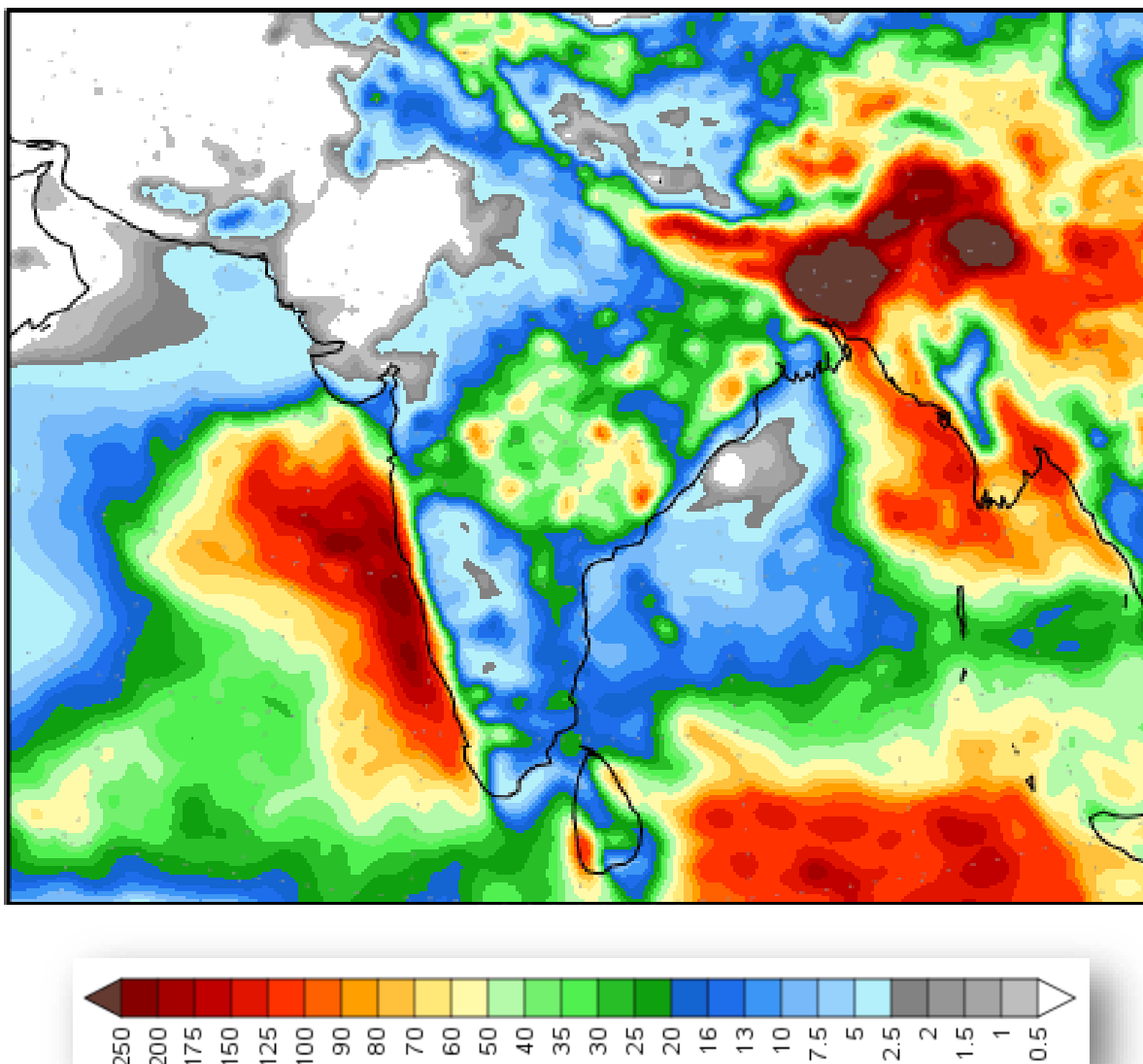
- **Livestock:** Ensure cleanliness in cows having advanced pregnancy to avoid mastitis. Monitor the animals for foot and mouth disease and advised protect calves against parasites, get them dewormed with piperazine liquid @ 4 ml/kg body weight, first at 10 days of age, then 15 days and then monthly up to three months of age and then quarterly upto one year of age. Vaccination. Ecto-parasite attack is expected in this weather for control spary Butox @ 2ml per litre in cowshed Give mixture of hay & green fodder.
- **Poultry:** Temperature is rising, 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. Normal feeding schedule should be continued. Purchase day-only vaccinated chicks from reputed hatcheries to raise broiler chicks for maximum profits. Spray the poultry shed with Carbyl compound 5% solution 50 WP as per the requirement.
- **Horticulture:** In mango and citrus, during flowering irrigation should be avoided for good fruit setting. Constant monitoring of mango mealy bug and leaf hopper are advised. For control of peach leaf curl spray metasystox @ 1ml per litre + blitox @ 3g per litre of water. Keep the basins of the plants free from weeds. Wrapping of plastic sheets around mango trunk should be done for preventing climbing of young mealy bugs. Apply grease to seal any cracks in the polythene sheets.
- **Tea:** It is optimum time to resume picking in tea at 9- 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.
- **Apiculture:** Keep the colonies in shady places and sprinkle water if possible to reduce the heat as temperature rising high in the region. Insert the brood chamber without frame for ensuring aeration. Dust sulphur 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.

- Fisheries: Double the normal dose of feed to meet the additional requirement for nutrients. Water depth of at least 5 feet should be maintained in order to rear all the three types of fish viz., mirror carp, grass carp and silver carp. Add supplementary feed (rice/wheat bran & mustard oil cake and rice/wheat bran) @ 3-5% of total fish biomass on daily basis. Finely crushed boiled eggs and goat liver can be given at intervals to add to vigor. To protect from microbial attack so clean your raceways regularly at 15 day intervals and give regular rock salt baths to your stock. In the event of high temp fluctuations in lower plain areas, put 5g lime per sq ft to avoid the stress.







**Figure:2. Precipitation forecast for 10 Jun to 18 Jun 2022 (Source: NOAA NCEP).**

*Disclaimer: The predictability of weather depends on many dynamic factors. The success of Agromet advisories provided here depends on the accuracy of the forecasts. In no event will India Meteorological Department (IMD) and Indian Council of Agricultural Research (ICAR) be liable to the user or any third party for any direct, indirect, incidental, consequential, special or exemplary damages or lost profit resulting from any use or misuse of the information on this bulletin.*