

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

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

### **Daily Crop Weather Information as on 10 July 2019**

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

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

- Northern Limit of Monsoon (NLM) continues to pass through Lat. 25°N/Long. 60°E, Lat. 25°N/Long. 65°E, Barmer, Jodhpur, Churu, Ludhiana, Kapurthala and Lat. 33°N/Long. 74.5°E.
- The well marked low pressure area over East Uttar Pradesh & adjoining Bihar with associated cyclonic circulation extending upto 7.6 km above mean sea level persists.
- The seasonal trough across the northern plains is likely to shift further northwards after 48 hours. As a consequence, widespread rainfall with heavy to very heavy falls at isolated places are likely over Uttar Pradesh during 10th-14th July with isolated extremely heavy falls over East Uttar Pradesh on 10th, 11th & 12th July. The enhanced rainfall activity with widespread of rainfall with isolated heavy to very heavy falls are likely to continue over Assam & Meghalaya, Arunachal Pradesh (isolated extremely heavy falls as well) and Nagaland, Manipur, Mizoram & Tripura during 10th-12th July.
- Widespread of rainfall with isolated heavy to very heavy and extremely heavy falls are also likely over Bihar (northern Districts especially), Sub-Himalayan West Bengal & Sikkim and Uttarakhand during 10th-12th July and heavy to very heavy falls over Himachal Pradesh on 12th July.
- Widespread of rainfall activity with isolated heavy to very heavy falls are likely over Konkan and Coastal Karnataka during next 24 hours with reduction in intensity thereafter.
- The images showing the latest satellite picture in figure. 1

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

- Rain/Thunder showers observed (from 0830 hours IST of yesterday to 0830 hours IST of today ): at most places over Punjab, Jammu & Kashmir, Uttarakhand, Haryana, Chandigarh & Delhi, Konkan & Goa, Coastal Karnataka, Lakshadweep, Kerala, Uttar Pradesh, Bihar, Arunachal Pradesh, Assam & Meghalaya, Nagaland,

Manipur, Mizoram & Tripura, and Sub-Himalayan West Bengal & Sikkim; at many places over Himachal Pradesh, Madhya Maharashtra, South Interior Karnataka, Tamil Nadu, Puducherry & Karaikal, Telangana, Odisha, Jharkhand, East Madhya Pradesh and Chhattisgarh; at a few places over Gujarat region, North Interior Karnataka, Vidarbha, West Madhya Pradesh, Coastal Andhra Pradesh and Gangetic West Bengal and at isolated places over East Rajasthan, Rayalaseema, Marathwada and Andaman & Nicobar Islands.

- Heavy Rainfall observed at a few places with extremely heavy falls at isolated places over Assam & Meghalaya; Heavy to very heavy rainfall observed at a few places over East Uttar Pradesh; heavy rainfall observed at a few places over Sub-Himalayan West Bengal & Sikkim and Coastal Karnataka and at isolated places over Punjab, Bihar, Arunachal Pradesh, Madhya Maharashtra and Kerala & Mahe.
- Thunderstorm observed (from 1730 hours IST of yesterday to 0830 hours IST of today): at isolated places over Gangetic West Bengal, Uttarakhand, Bihar, Punjab, Haryana, Chandigarh & Delhi, East Madhya Pradesh and Tamil Nadu & Puducherry
- Maximum temperature departures as on 09-07-2019: Maximum temperatures were appreciably above normal (3.1°C to 5.0°C) at a few places over North Interior Karnataka; at isolated places over Coastal Andhra Pradesh & Yanam and Tamil Nadu, Puducherry & Karaikal; above normal (1.6°C to 3.0°C) at many places over West Rajasthan, Saurashtra & Kutch, Telangana and Gangetic West Bengal; at a few places over Gujarat Region, Konkan & Goa, Marathwada, Lakshadweep and Andaman & Nicobar Islands; at isolated places over Kerala & Mahe, Odisha and Chhattisgarh. They were markedly below normal (-5.1°C or less) at many places over Arunachal Pradesh; at a few places over Jammu & Kashmir, Uttarakhand, Haryana, Chandigarh & Delhi and Uttar Pradesh; at isolated places over Madhya Pradesh and Nagaland, Manipur, Mizoram & Tripura; appreciably below normal (-3.1°C to -5.0°C) at many places over Assam & Meghalaya; below normal (-1.6°C to -3.0°C) at most places over Punjab and Bihar; at many places over Himachal Pradesh, East Rajasthan and Sub-Himalayan West Bengal & Sikkim; at a few places over Jharkhand and near normal over rest parts of the country. Yesterday, the highest maximum temperature of 42.3°C was recorded at Ganganagar (West Rajasthan).
- Minimum temperature departures as on 10-07-2019: Minimum temperatures are appreciably above normal (3.1°C to 5.0°C) at isolated places over West Rajasthan and Coastal Andhra Pradesh & Yanam; above normal (1.6°C to 3.0°C) at many places over Jammu & Kashmir, East Rajasthan, Rayalaseema, Jharkhand and Andaman & Nicobar Islands; at a few places over Gujarat and Gangetic West Bengal and at isolated places over Haryana, Chandigarh & Delhi and Tamil Nadu, Puducherry & Karaikal. They are appreciably below normal (-3.1°C to -5.0°C) at isolated places over Madhya Pradesh; below normal (-1.6°C to -3.0°C) at isolated

places over Assam & Meghalaya, East Uttar Pradesh, Madhya Maharashtra, Marathawada, Coastal Karnataka and Lakshadweep and near normal over rest parts of the country.

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

- 10 July (Day 1): Heavy to very heavy rainfall at a few places with extremely heavy falls at isolated places very likely over East Uttar Pradesh; Heavy to very heavy rainfall with extremely heavy falls at isolated places very likely over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh and Assam & Meghalaya; Heavy to very heavy rainfall at isolated places over Uttarakhand, West Uttar Pradesh, Bihar, Madhya Maharashtra, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa and Coastal Karnataka; heavy rainfall at isolated places over Jammu & Kashmir, Himachal Pradesh, Haryana, Chandigarh & Delhi, Chhattisgarh, Interior Karnataka, Lakshadweep, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal. Thunderstorm accompanied with lightning at isolated places very likely over Jharkhand. Rough to very rough sea conditions (with wind speed reaching 40-50 kmph) are likely to prevail over southwest & adjoining central and north Arabian Sea, along & off Gujarat-Maharashtra-Goa-Karnataka coasts and along & off West Bengal-Odisha-Andhra Pradesh coasts. Squally weather is likely to prevail over Lakshadweep-Maldives area and along & off Kerala coast. Fishermen are advised not to venture into these areas.
- 11 July (Day 2): Heavy to very heavy rainfall at a few places with extremely heavy falls at isolated places very likely over East Uttar Pradesh; Heavy to very heavy rainfall with extremely heavy falls at isolated places very likely over Uttarakhand, Bihar, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh and Assam & Meghalaya; Heavy to very heavy rainfall at isolated places over West Uttar Pradesh and Nagaland, Manipur, Mizoram & Tripura; heavy rainfall at isolated places over Himachal Pradesh, Gangetic West Bengal, Coastal & South Interior Karnataka and Konkan & Goa. Thunderstorm accompanied with lightning at isolated places very likely over Odisha. Rough to very rough sea conditions (with wind speed reaching 40-50 kmph) are likely to prevail over southwest & adjoining central and north Arabian Sea, along & off Gujarat-Maharashtra-Goa-Karnataka coasts. Fishermen are advised not to venture into these areas.
- 12 July (Day 3): Heavy to very heavy rainfall with extremely heavy falls at isolated places very likely over Uttarakhand, East Uttar Pradesh, Bihar; Heavy to very heavy rainfall at isolated places over Himachal Pradesh, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh and Assam & Meghalaya; heavy rainfall at isolated places over Tamil Nadu, Puducherry & Karaikal, West Uttar Pradesh, Nagaland, Manipur, Mizoram & Tripura, Gangetic West Bengal, Coastal Karnataka and Konkan & Goa. Rough to very rough sea conditions (with wind speed reaching 40-50 kmph) are likely to prevail over southwest & adjoining central and north Arabian

Sea. Fishermen are advised not to venture into these areas. 13 July (Day 4): Heavy to very heavy rainfall at isolated places likely over Uttarakhand, East Uttar Pradesh, Bihar, Sub-Himalayan West Bengal and Assam & Meghalaya ; heavy rainfall at isolated places over Jammu & Kashmir, Himachal Pradesh, Punjab, Haryana, Chandigarh & Delhi, Coastal Karnataka, Arunachal Pradesh, Konkan & Goa and Nagaland, Manipur, Mizoram & Tripura. Rough to very rough sea conditions (with wind speed reaching 40-50 kmph) are likely to prevail over southwest & adjoining central and north Arabian Sea. Fishermen are advised not to venture into these areas. 1

- 4 July (Day 5): Heavy to very heavy rainfall at isolated places likely over Uttarakhand and Assam & Meghalaya; heavy rainfall at isolated places over Jammu & Kashmir, Himachal Pradesh, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, Bihar, Odisha, Sub-Himalayan West Bengal, Arunachal Pradesh, Coastal & South Interior Karnataka and Konkan & Goa. Rough to very rough sea conditions (with wind speed reaching 40-50 kmph) are likely to prevail over southwest & adjoining central and north Arabian Sea. Fishermen are advised not to venture into these areas.
- The weather outlook for the period of seven days *i.e.*, 10 to 18 July 2019 forecasted (*Provided by Real-Time Weather Forecasts from NOAA/NCEP collected from <http://monsoondata.org/wx2/>*) rain/thundershower may occur over Sub-Himalayan West Bengal & Sikkim, Bihar, Madhya Pradesh, Odisha, Konkan & Goa, Vidarbha, Madhya Maharashtra, Marathwada, Konkan & Goa, Coastal Andhra Pradesh, Rayalaseema, North Interior Karnataka, Coastal & South Interior Karnataka, Kerala, Tamil Nadu & Puducherry, Lakshadweep, Andaman & Nicobar Islands and North Eastern States. (Fig. 2).

## Agricultural activities (AICRPAM-CRIDA)

### **Jammu**

#### **Weather condition:**

Moderate rainfall is received in Jammu state during past few days. The maximum temperature was ranged between 35-42°C and minimum temperature was ranged between 23-32°C.

## Contingency measure:

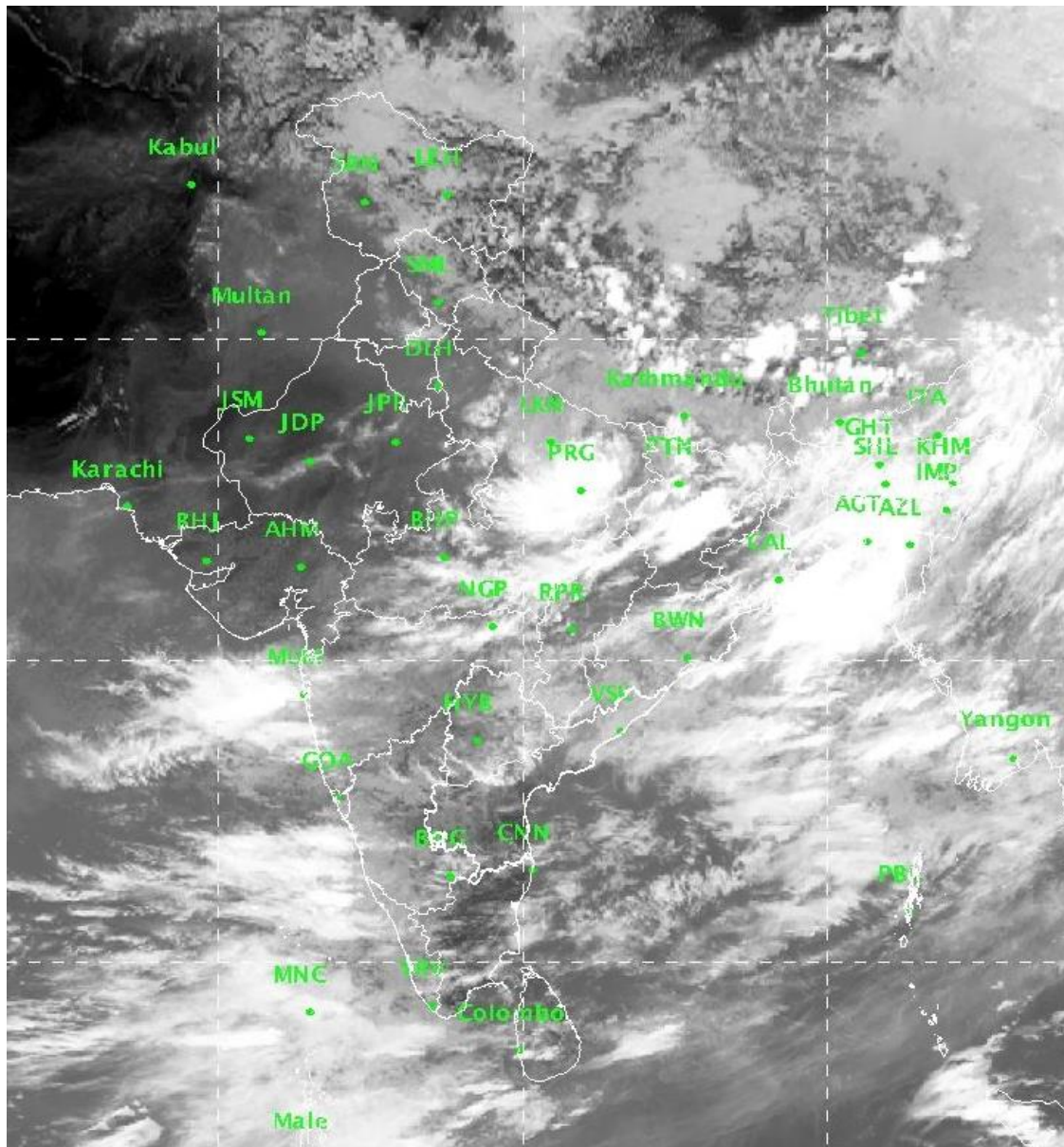
Paddy Transplanting Direct seeding: After rainfall, farmers can go for transplanting of rice seedlings which have attained 4-6 leaves (varieties: China-1039, IET-1410, Ratna, PC-19, SJR-5 & Jaya). Apply the basal dose of fertilizer at the time of transplanting. Transplant 2-3 healthy seedlings per hill free from pests and diseases. Apply irrigation as per requirement. Keep the rice nursery and bunds free from weeds either by hand weeding or by application of butachlor weedicide @30 kg/ha. Apply irrigation due to high evaporation rate. Go for direct sowing of paddy crop without any delay. Apply full dose of P and K and 1/3 dose of Nitrogen fertilizer. Apply irrigation due to high evaporation rate.

- Maize Sowing: Farmers may go for sowing of maize crop (var. Vivek-25, Vivek QOM-9, HM-5 and HQPM-1) with seed rate of 20-30 kg/ha after the receipt of rain. Treat the seed with Bavistin @ 3g/kg of seed to manage soil borne diseases.
- Lady finger varieties like Varsha Uphaar, Arka Anamika are recommended. Earthing up is also recommended. Fruit fly attack can be minimized by pheromone traps@ 10m<sup>2</sup> area or malathion @ 20ml/lit during clear weather. Fruit borer attack can be minimized by the application of dichlorovos @ 2.0ml/lit of water during clear weather. Regular hand picking of infested fruits and their proper disposal is very important.
- Floriculture: Rainy annuals Chrysanthemum Transplanting Mother stock: Give need based irrigation due to high evaporation. Transplanting of rainy seasonal annuals (gaillardia, balsam, cosmos, portulaca, kochia, sunflower, morning glory, gomphrena, celosia etc.) can be done after the rainfall. Cutting should be started. Treat the cuttings with IBA @200ppm and plant in sand.
- *Kharif* fodder (maize+cow pea+charri) & bajra sowing: Sowing of the mixed fodder crop can be undertaken wherever soil moisture is available or carryout sowing after the rain.
- Sericulture Cocoon crop: Pack the cocoons harvested during April month in loosely packed muslin cloth bags. The bags should be kept in wire mesh covered racks to avoid rodent attack till the sale of crop.
- Horticulture: Give need based irrigation due to high evaporation. Protect young from intense heat by providing thatching. Provide grass mulch on plant basin to minimize evaporation. Milky mushroom: Farmers interested in growing milky mushroom should book the spawn of milky mushroom from a reliable agency.
- Apiculture: Protect colonies from high temperature by shifting to shady areas/ cooler places or cover with wet gunny bags. Provide water source in the apiary. To

control mites, dust sulphur on top bars @ 1g/frame /oxalic acid treatment @ 3.5% per litre water.

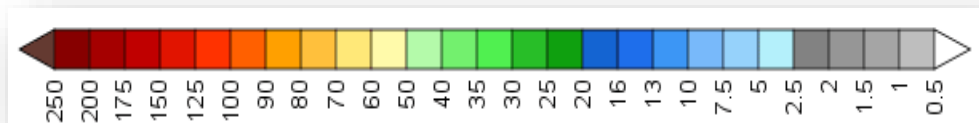
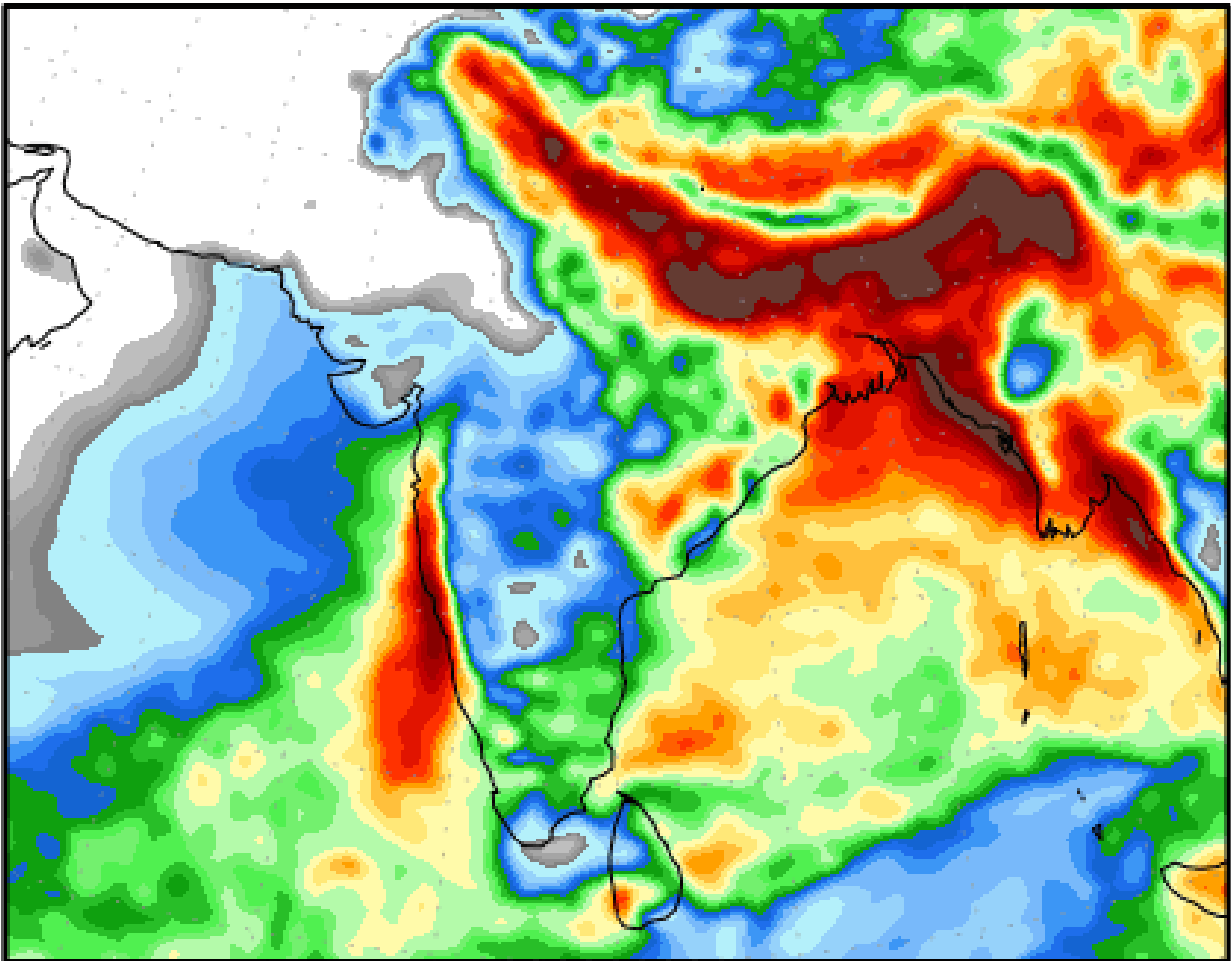
- Poultry: Maintain proper ventilation at poultry house. Vaccinate chicks against new castle and gumbroo diseases. Spread clean litter material uniformly in the poultry house at thickness of 2-3 inches.
- Live stock: Dairy animals/ Sheep & Goat Sheep and goat should be allowed to graze/browse during cooler parts of the day i.e., in the morning and evening. Provide adequate amount of fresh cool and clean drinking water to the animals at frequent intervals to save them from heat stroke. Provide water bath 3-4 times in a day. Sprinkle water in sheds to reduce heat stress or keep all the animals under shade and if possible provide coolers to cross breed cattles during the day time. Supplementary mineral mixture should be given regularly to the milking and pregnant animals. Livestock needs to be dewormed against strongyles in plain areas of Jammu. If not vaccinated yet, get the animals vaccinated against foot and mouth and Gal Gotu diseases.
- Fisheries Carp farming Fry/ yearlings: Farmers who have stocked fish livestock in their ponds are advised to maintain proper water level in their fish ponds.





**Figure: 1. Latest available satellite picture as on 10 July 2019 at 1330Hrs (IST).**

**(Source: IMD).**



**Figure:2. Precipitation forecast for 10 to 18 July 2019 (Source: NOAA NCEP).**