

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

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

### **Daily Crop Weather Information as on 20 September 2021**

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

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

- A cyclonic circulation lies over East Rajasthan & adjoining neighbourhood and extends upto Mid tropospheric level.
- A cyclonic circulation lies over Gangetic West Bengal & neighbourhood and extends upto mid-tropospheric levels.
- Western parts of the monsoon trough lies south of its normal position and its eastern end is its near normal position.
- Weather forecast and Warning:
  - i) Fairly widespread to widespread rainfall with isolated heavy falls very likely over East Rajasthan during next 05 days, and over Madhya Pradesh, Vidarbha and Chhattisgarh during next 04 days; over Konkan & Goa, Madhya Maharashtra, Marathwada during next 03 days and over Gujarat region during next 02 days. Isolated very heavy falls is also likely over East Rajasthan on 20th & 21st September, 2021.
  - ii) Scattered to fairly widespread rainfall with isolated heavy falls very likely over Uttarakhand during 20th-24th September, 2021.
  - iii) Fairly widespread to widespread Rainfall with isolated heavy falls very likely to continue over Odisha and Gangetic West Bengal on 20th & 21st September, 2021 and decrease in rainfall activity thereafter. Isolated very heavy falls is also likely Gangetic West Bengal on 20th September, 2021.
  - iv) A cyclonic circulation likely to form over Eastcentral and adjoining Northeast Bay of Bengal around 25th September. It is likely to move westnorthwestwards and reach Odisha coast during subsequent 48 hours. Under its influence a fresh spell of heavy rainfall likely over Odisha and adjoining areas from 26th September.
- The images showing the latest satellite picture in the figure. 1.

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

- Rainfall/Thundershowers observed (from 0830 hours IST of yesterday to 0830 hours IST of today): at many places over Gangetic west Bengal, Jharkhand,

Chhattisgarh and Odisha; at a few places over Rajasthan, West Madhya Pradesh, Konkan & Goa, East Madhya Pradesh, Bihar and Nagaland, Manipur, Mizoram & Tripura and at isolated places over Himachal Pradesh, Saurashtra & Kutch, Madhya Maharashtra, Vidarbha, Telangana, Assam & Meghalaya, Coastal Andhra Pradesh & Yanam, Tamilnadu, Puducherry & Karaikal and Andaman & Nicobar Islands.

- Heavy rainfall observed (from 0830 hours IST of yesterday to 0830 hours IST of today): Very heavy rainfall at isolated places over West Madhya Pradesh, East Rajasthan and Gangetic West Bengal and heavy rainfall at isolated places over Uttarakhand, West Rajasthan, East Madhya Pradesh, Chhattisgarh, Coastal Andhra Pradesh, Telangana, Rayalaseema, Tamilnadu, Odisha and Konkan & Goa.
- Thunderstorm observed (from 0830 hours IST of yesterday to 0830 hours IST of today): at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, East Uttar Pradesh, West Rajasthan, Gujarat Region, East Madhya Pradesh, Gangetic West Bengal, Jharkhand, Odisha, Bihar, Vidarbha, Chhattisgarh, Telangana, Coastal Andhra Pradesh & Yanam, South Interior Karnataka, Kerala & Mahe and Tamilnadu, Puducherry & Karaikal.
- Maximum Temperature Departures as on 19-09-2021: Maximum temperatures were appreciably above normal (3.1°C to 5.0°C) at a few places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad; at isolated places over Coastal Andhra Pradesh & Yanam and Tamilnadu, Puducherry & Karaikal; above normal (1.6°C to 3.0°C) at most places over Uttarakhand, Rayalseema and Kerala & Mahe; at many places over Arunachal Pradesh, and Assam & Meghalaya; at a few places over Himachal Pradesh, East Uttar Pradesh, Bihar, East Madhya Pradesh, Telangana, Coastal Karnataka and Andaman & Nicobar Islands; at isolated places West Uttar Pradesh and Madhya Maharashtra. They were appreciably below normal (-3.1°C to -5.0°C) at many places over Gujarat Region; at a few places over West Madhya Pradesh; at isolated places over Odisha; below normal (-1.6°C to -3.0°C) at most places over East Rajasthan, at many places over Chhattisgarh and Jharkhand; at isolated places Gangetic west Bengal and near normal over rest parts of the country. Yesterday, the highest maximum temperature of 38.5°C was reported at K. Parmathy (Tamilnadu, Puducherry & Karaikal).
- Minimum Temperature Departures as on 20-09-2021: Minimum temperatures are appreciably above normal (3.1°C to 5.0°C) at most places over Himachal Pradesh

and Punjab; at many places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad and Uttarakhand; above normal (1.6°C to 3.0°C) at many places over Haryana, Chandigarh & Delhi, West Rajasthan, Kerala & Mahe, Rayalaseema and Sub Himalayan West Bengal & Sikkim; at a few places over East Rajasthan, Vidarbha, Uttar Pradesh, Bihar, North Interior Karnataka; at isolated places over Assam & Meghalaya, Madhya Pradesh, Telangana, Gujarat state and Madhya Maharashtra. They are below normal (-1.6°C to -3.0°C) at a few places over Tamil Nadu, Puducherry & Karaikal; at isolated places over Coastal Andhra Pradesh & Yanam and near normal over rest parts of the country. Today, the lowest minimum temperature of 17.5°C reported at Khargone (West Madhya Pradesh) over the plains of the country.

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

- 20 September (Day 1): Heavy to very heavy rainfall very likely at isolated places over East Rajasthan and Gangetic West Bengal; heavy rainfall at isolated places over Uttarakhand, Southwest Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Jharkhand, Odisha, Andaman & Nicobar Islands, Nagaland, Manipur, Mizoram & Tripura, Gujarat Region, Madhya Maharashtra, Marathwada, Konkan & Goa, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, South Interior Karnataka, Kerala & Mahe and Tamilnadu, Puducherry & Karaikal. Thunderstorm accompanied with lightning very likely at isolated places over Uttarakhand, Rajasthan, East Uttar Pradesh, Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Jharkhand, Gangetic West Bengal, Andaman & Nicobar Islands, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Gujarat State, Madhya Maharashtra, Marathwada, Konkan & Goa, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, South Interior Karnataka, Kerala & Mahe and Tamilnadu, Puducherry & Karaikal. Squally weather (wind speed 40-50 kmph to gusting 60 kmph) very likely over the Southwest & Westcentral Arabian Sea; Northwest Bay of Bengal along & off West Bengal-Odisha coast. Fishermen are advised not to venture into these areas.
- 21 September (Day 2): Heavy to very heavy rainfall very likely at isolated places over East Rajasthan; heavy rainfall at isolated places over Himachal Pradesh, Uttarakhand, Southwest Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Gangetic West Bengal, Odisha, Andaman & Nicobar Islands, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Gujarat Region, Madhya Maharashtra, Marathwada, Konkan & Goa, Coastal Andhra Pradesh & Yanam, Telangana, North Interior Karnataka and Tamil Nadu, Puducherry & Karaikal. Thunderstorm accompanied with lightning very likely at isolated places over

Uttarakhand, Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Jharkhand, Gangetic West Bengal, Andaman & Nicobar Islands, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Gujarat State, Marathwada, Coastal Andhra Pradesh & Yanam, Telangana, South Interior Karnataka, Kerala & Mahe and Tamilnadu, Puducherry & Karaikal. Squally weather (wind speed 40-50 kmph to gusting 60 kmph) very likely over the Southwest & Westcentral Arabian Sea. Fishermen are advised not to venture into these areas.

- 22 September (Day 3): Heavy rainfall very likely at isolated places over Rajasthan, Uttarakhand, West Uttar Pradesh, Madhya Pradesh, Vidarbha, Chhattisgarh, Gangetic West Bengal, Andaman & Nicobar Islands, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra, Marathwada, Konkan & Goa and Tamilnadu, Puducherry & Karaikal. Thunderstorm accompanied with lightning very likely at isolated places over Uttarakhand, Haryana, Chandigarh & Delhi, Rajasthan, Jharkhand, Coastal Andhra Pradesh & Yanam, Kerala & Mahe and Tamilnadu, Puducherry & Karaikal.
- 23 September (Day 4): Heavy rainfall likely at isolated places over East Rajasthan, Uttarakhand, East Uttar Pradesh, Madhya Pradesh, Vidarbha and Andaman & Nicobar Islands. Thunderstorm accompanied with lightning likely at isolated places over Uttarakhand, East Uttar Pradesh, Rajasthan, Kerala & Mahe and Tamilnadu, Puducherry & Karaikal.
- 24 September (Day 5): Heavy rainfall likely at isolated places over East Rajasthan, Uttarakhand, East Uttar Pradesh, West Madhya Pradesh, Gujarat Region and Andaman & Nicobar Islands. Thunderstorm accompanied with lightning likely at isolated places over Uttarakhand, East Uttar Pradesh, Rajasthan, Kerala & Mahe and Tamilnadu, Puducherry & Karaikal.
- The weather outlook for seven days i.e., 20 Sep to 28 Sep 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 21.4 to 28.5 °C and 17.5 to 19.2 °C which was above normal by 0.1 to 3.0 °C and 0.4 to 1.3 °C, respectively. 85.2 mm rainfall was received during the week against the normal of 55.2 mm. The relative humidity varied between 68-100 % and sunshine hours between 0-9 hrs/day with variable sky conditions (Octa 2-8). The evaporation rate varied 1.8-3.2 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. Spray of bavistin @ 1 ml/litre in case of rice blast disease at 15 interval is advised. Rice hispa is expected in rice fields, for management clear the grasses from bunds or Spraying of recommended chemicals is advised.
- **Maize:** Constant monitoring of maize crop against attack of maize aphid is advised. In Maize, stalk rot is expected in this weather for control drench maize fields with Advisory for coming 5 Days: There is heavy rainfall expected in the region. Maximum temperature 33-34 °C and minimum temperatures 24- 25 °C is expected during next five days. Relative humidity will remain between 53-94 per cent. The average wind speed in next five days will remain 8 km/h. Over clouds are expected. [www.hillagric.ac.in/info/kisano\\_ke\\_liye\\_soochna](http://www.hillagric.ac.in/info/kisano_ke_liye_soochna), email: [ranars66@rediffmail.com](mailto:ranars66@rediffmail.com) Ph.No. : +91- 1894232245 Fax: 91-1894 230406 bleaching powder @16 kg/ha.
- **Pulses:** In the standing crop of soybean, moong, urad, if the outbreak of whitefly, sucking insects is high, then spray the approved insecticides for control when the sky is clear. Ensure drainage in fields and weed free conditions. Hairy caterpillar is also appearing in mash and til crops. For control spray Cypermethrin 25 EC 0.5 ml /litres of water.
- **High Hills:** The crop planted earlier in high hilly region, intercultural operations and urea dose advised. Improved grasses may be planted. In high hilly intercultural operations and urea dose to peas, turnip, carrot, palak etc. is advised.
- **Fodder Crops:** In mid hill region root slips of setaria, hathi grass may be planted in grasslands. The hay making process should be started and grasses may cut before flowering and dry during sunny days. Prepare silage out of extra fodder of maize to meet the requirement of fodder during lean periods, especially in the

month of December and January.

- 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.
- Bhindi & Frenchbean: Monitoring of lady finger crop against attack of Fruit borer and mite is advised. Weed control in bhindi and frenchbean is advised.
- Tomato, Chilli, Capsicum And Brinja: 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.
- 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.
- 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 mealy bug expected in the orchards, for control of mealy bug spray recommended chemicals. 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. It is optimum time for new plantation of tea plants or for infilling of gaps with new plants.
- 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 30°C, 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 formaline 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 18-22°C 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 Chlorpyrifos 20 EC @ 3ml/l. Monitor foliar pest on plants of Citrus species. Spray Chlorantraniliprole 18.5SC @ 0.4 ml/l or lambda cyhalothrin 4.90CS @ 0.8 ml/l for pomegranate butterfly. Advised recommended spray of chemicals for control of citrus canker.
- Fruit Trees: Sowing of mango, litchi, guava, papaya, pecanutt and kagzi lime is recommended under these weather conditions. Air layering of litchi, guava, kagzi lime and lemon is recommended. Side veneer grafting in mango and inverted T-budding in citrus is recommended. Transplanting of seedlings of rough lemon (Khatti) in the nursery beds, if not done during July. Weeding in nursery is recommended.
- 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.

SAT : INSAT-3D IMG  
IMG\_TIR1 10.8 um  
LIC Mercator

20-09-2021/(0800 to 0827) GMT  
20-09-2021/(1330 to 1357) IST

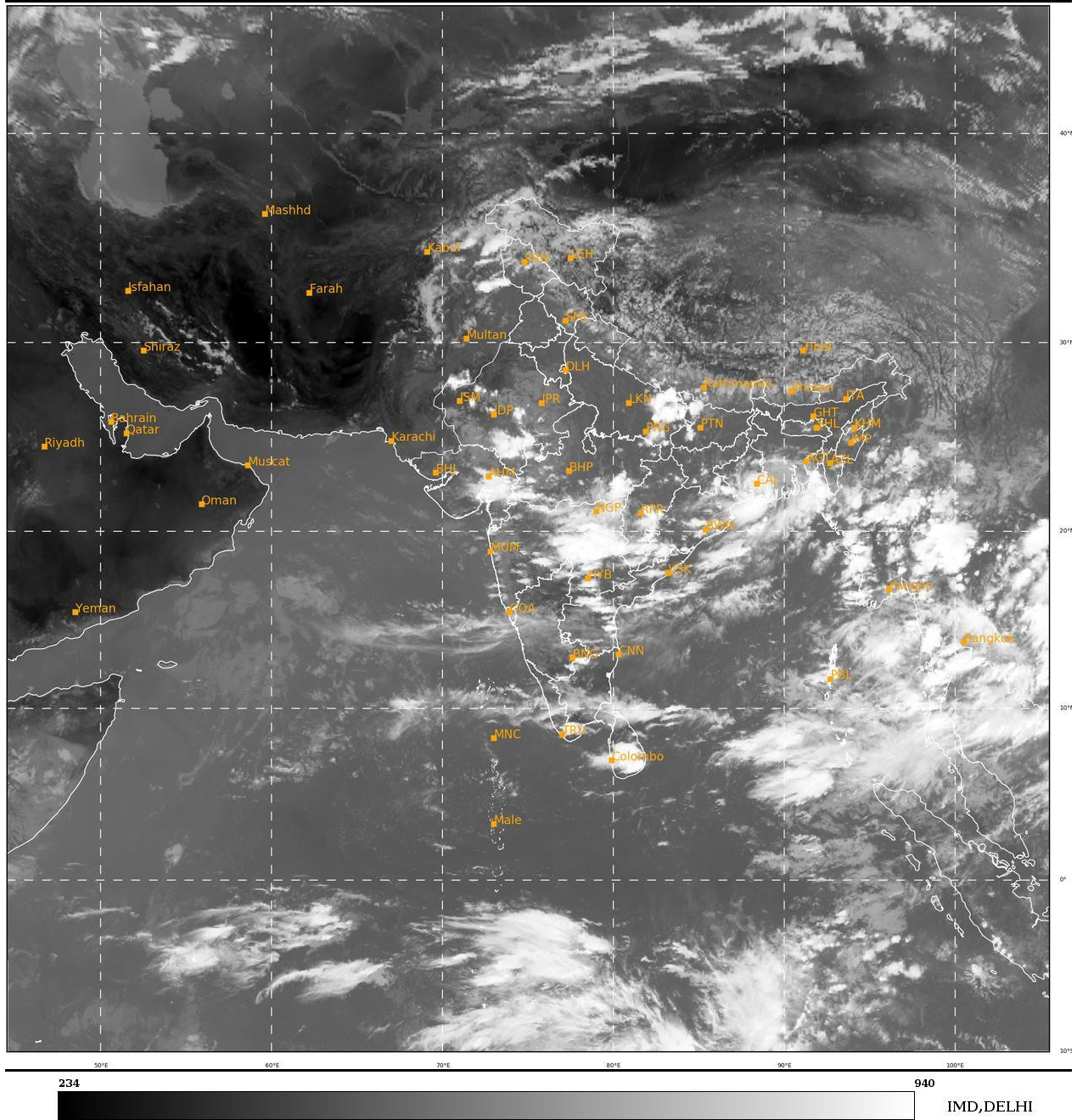
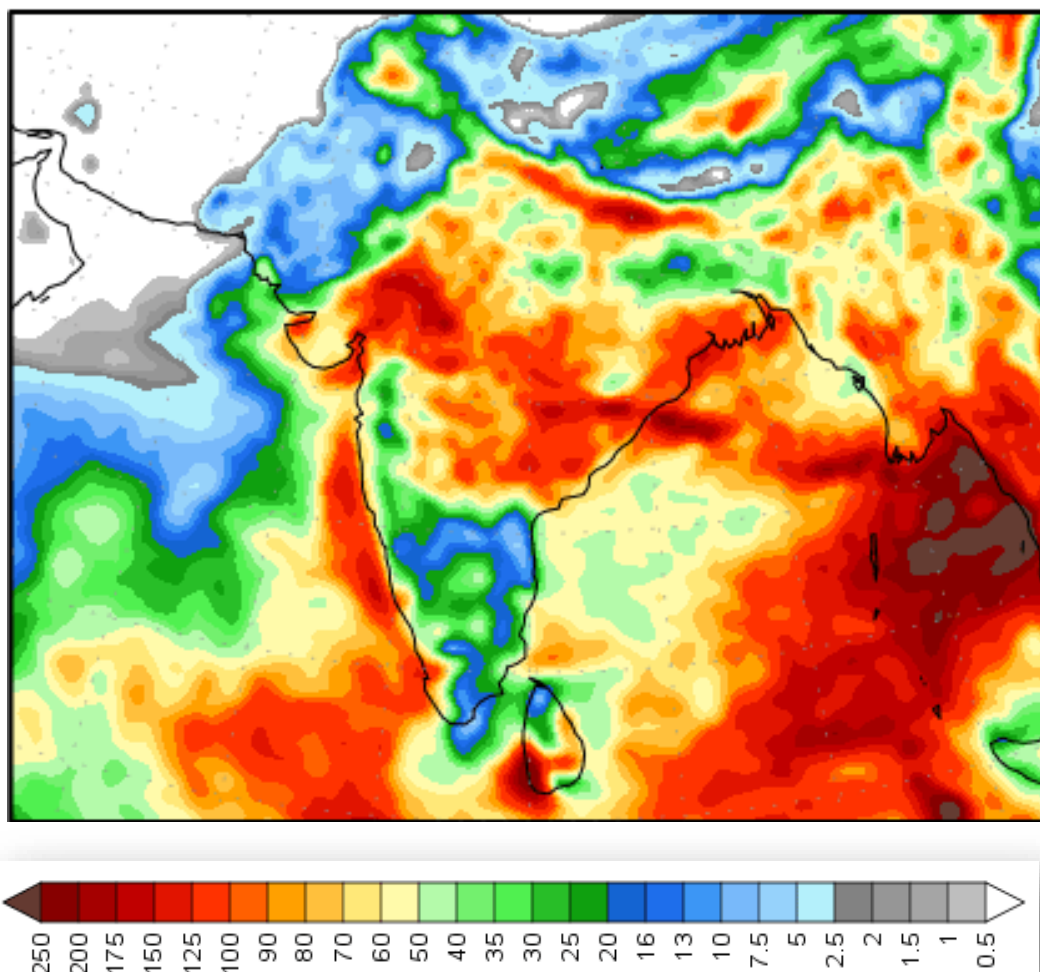


Figure: 1. Latest available satellite picture as on 20 Sep 2021 at 1357 Hrs (IST). (Source: IMD).





**Figure:2. Precipitation forecast for 20 Sep to 28 Sep 2021 (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.*