

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

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

### **Daily Crop Weather Information as on 28 September 2021**

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

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

- The Depression over Telangana and adjoining areas of Marathwada & Vidarbha moved west-northwestwards with a speed of 26 kmph during last 06 hours and lay centered at 0830 hrs IST of 28th September 2021 over southwest Vidarbha & neighbourhood near Lat. 19.4°N and Long. 77.3°E, about 60 km eastnortheast of Parbhani (Marathwada) and 250 km southwest of Nagpur (Vidarbha). It is likely to move west-northwestwards and weaken into a Well Marked Low Pressure Area during next 06 hours. The system is likely to emerge into northeast Arabian Sea & adjoining Gujarat coast around 30th September and there is likelihood for the system to further intensify into Depression over northeast Arabian Sea during subsequent 24 hours.
- Under the influence of the cyclonic circulation over Northeast & adjoining Eastcentral Bay of Bengal, a Low Pressure Area has formed over Northwest Bay of Bengal & adjoining coastal areas of West Bengal.
- The east-west trough runs from north Konkan to north Coastal Andhra across cyclonic circulation associated with Depression over southwest Vidarbha & neighbourhood to Pradesh in lower & middle tropospheric levels. Under the influence of the above systems:
  - i) 28th Sept.: Heavy to very heavy rainfall with extremely heavy falls very likely at isolated places over south Gujarat region, north Madhya Maharashtra, Marathwada, north Konkan, Gangetic West Bengal; Heavy to very heavy rainfall at isolated places over Saurashtra; Heavy rainfall at isolated places over Odisha and Jharkhand.
  - ii) 29th Sept.: Heavy to very heavy rainfall with extremely heavy falls very likely at isolated places over Gujarat state Heavy to very heavy rainfall at isolated places over Gangetic West Bengal, Odisha, Jharkhand, north Madhya Maharashtra & north Konkan; Heavy rainfall at isolated places over Marathwada.
  - iii) 30th Sept.: Heavy to very heavy rainfall very likely at isolated places over Saurashtra & Kutch; Heavy rainfall at isolated places over Odisha, Gangetic West Bengal and Gujarat Region.

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

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

- Rainfall/Thundershowers observed (from 0830 hours IST to 0830 hours IST of yesterday) at most places over Andaman & Nicobar Islands, Gangetic West Bengal, Saurashtra & Kutch, Konkan & Goa, Madhya Maharashtra, Marathwada, Telangana, Coastal Karnataka and Kerala & Mahe; at many places over Sub-Himalayan West Bengal & Sikkim, Odisha, Jharkhand, East Rajasthan, Gujarat Region, Vidarbha, Coastal Andhra Pradesh & Yanam, North Interior Karnataka and Lakshadweep; at a few places over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Bihar, Uttarakhand, West Rajasthan, West Madhya Pradesh and South Interior Karnataka and at isolated places over Uttar Pradesh, Haryana, Chandigarh & Delhi, Himachal Pradesh, Jammu, Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, East Madhya Pradesh, Chhattisgarh, Rayalaseema and Tamilnadu, Puducherry & Karaikal.
- Heavy Rainfall recorded (0830 hrs IST of yesterday to 0830 hrs IST of today): Extremely heavy rainfall at isolated places over Telangana; Heavy to Very Heavy Rainfall at isolated places over Odisha, Saurashtra & Kutch, Marathwada, Coastal Andhra Pradesh, Chhattisgarh and Andaman & Nicobar Islands and Heavy Rainfall at isolated places over Uttarakhand, Madhya Maharashtra, Gujarat Region, Vidarbha, Rajasthan, West Madhya Pradesh, Tamilnadu, Puducherry & Karaikal, Coastal Karnataka, North Interior Karnataka and Lakshadweep.
- Thunderstorm observed (from 0830 hours IST of yesterday to 0830 hours IST of today): at many places over Saurashtra & Kutch; at a few places over Coastal Andhra Pradesh & Yanam, Jharkhand, Assam & Meghalaya and West Madhya Pradesh; at isolated places over Himachal Pradesh, Rajasthan, Odisha, Bihar, Marathwada, Gujarat Region, West Bengal & Sikkim, Nagaland, Manipur, Mizoram & Tripura, Telangana, Madhya Maharashtra and North Interior Karnataka.
- Minimum Temperature Departures as on 28-09-2021: Minimum temperatures are markedly above normal (5.0°C or more) at most places over Punjab; at many places over Himachal Pradesh and at a few places over Jammu, Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, d; appreciably above normal (3.1°C to 5.0°C) at most places over Uttarakhand; at many places over Haryana, Chandigarh & Delhi; at a few places over Madhya Pradesh and at isolated places over Rajasthan and West Uttar Pradesh; above normal (1.6°C to 3.0°C) at most places over East Uttar Pradesh at a few places over Coastal Andhra Pradesh & Yanam; at isolated

places over Tamil Nadu, Puducherry & Karaikal. They are below normal ( $-1.6^{\circ}\text{C}$  to  $-3.0^{\circ}\text{C}$ ) at most places over East Uttar Pradesh; at a many places over Sub-Himalayan West Bengal & Sikkim, Jharkhand; at a few places over Bihar and South Interior Karnataka and at isolated places over Odisha, Tamilnadu, Puducherry & Karaikal and Vidarbha and near normal over rest parts of the country. Today, the lowest minimum temperature of  $19.0^{\circ}\text{C}$  is reported at Bulsar (Gujarat Region) over the plains of the country.

- Maximum Temperature Departures as on 27-09-2021: Maximum temperatures were appreciably above normal ( $3.1^{\circ}\text{C}$  to  $5.0^{\circ}\text{C}$ ) at most places over Arunachal Pradesh and Assam & Meghalaya; at many places over Jammu, Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Uttarakhand, Bihar and SubHimalayan west Bengal & Sikkim; at a few places over Nagaland, Manipur, Mizoram & Tripura; above normal ( $1.6^{\circ}\text{C}$  to  $3.0^{\circ}\text{C}$ ) at many places over Himachal Pradesh and Uttar Pradesh; at isolated places over Gangetic West Bengal and West Madhya Pradesh. They were markedly below normal ( $-5.1$  or less) at many places over Telangana; at isolated places over Saurashtra & Kutch and East Madhya Pradesh; appreciably below normal ( $-3.1^{\circ}\text{C}$  to  $-5.0^{\circ}\text{C}$ ) at most places over North Interior Karnataka, at many places over Coastal Andhra Pradesh & Yanam; at a few places over Gujarat Region, Rajasthan and Madhya Maharashtra; and below normal ( $-1.6^{\circ}\text{C}$  to  $-3.0^{\circ}\text{C}$ ) at most places over Kerala & Mahe, at many places over Chhattisgarh, Odisha and Andaman & Nicobar Islands; at a few places over Haryana, Chandigarh & Delhi; at isolated places over Tamilnadu, Puducherry & Karaikal and near normal over rest parts of the country. Yesterday, the highest maximum temperature of  $38.0^{\circ}\text{C}$  was reported at Itanagar (Arunachal Pradesh).

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

- 28 September (Day 1): Heavy to very heavy rainfall with extremely heavy falls very likely at isolated places over Gangetic West Bengal, south Gujarat Region, Marathwada, Madhya Maharashtra and Konkan & Goa; Heavy to very heavy rainfall at isolated places over Saurashtra and heavy rainfall at isolated places over Vidarbha, Jharkhand, Odisha, Andaman & Nicobar Islands, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh & Yanam, Telangana, Coastal & North Interior Karnataka, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe. Thunderstorm accompanied with gusty winds (speed 30-40 kmph) & lightning very likely at isolated places over West Madhya Pradesh and Vidarbha and with lightning very likely at isolated places over Uttarakhand, Uttar Pradesh, East Rajasthan, Madhya Pradesh, Vidarbha, Bihar, Jharkhand, West Bengal & Sikkim, Odisha, Assam & Meghalaya, Nagaland,

Manipur, Mizoram & Tripura, Gujarat state, Madhya Maharashtra, Marathwada, Konkan & Goa, Coastal Andhra Pradesh & Yanam, Telangana, North Interior Karnataka, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal. Squally wind (speed reaching 45-55 kmph gusting to 65 kmph) very likely over North Bay of Bengal and along & off West Bengal -north Odisha coasts; (speed reaching 40-50 kmph gusting to 60 kmph) over Southeast Arabian Sea along & off Kerala coast, Lakshadweep area; Northeast Arabian Sea along & off Gujarat-Maharashtra-Goa coasts; Southeast Bay of Bengal and Andaman Sea. Fishermen are advised not to venture into these areas.

- 29 September (Day 2): Heavy to very heavy rainfall with extremely heavy falls very likely at isolated places over Gujarat state; Heavy to very heavy rainfall likely at isolated places over Jharkhand, Gangetic West Bengal, Odisha, Madhya Maharashtra and Konkan & Goa; Heavy rainfall at isolated places over Uttarakhand, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Marathwada. Thunderstorm accompanied with lightning very likely at isolated places over Uttarkhand, Uttar Pradesh, East Rajasthan, Bihar, Jharkhand, West Bengal & Sikkim, Odisha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Gujarat state, Coastal Andhra Pradesh & Yanam and Tamilnadu, Puducherry & Karaikal. Squally wind (speed reaching 45-55 kmph gusting to 65 kmph) very likely over North Bay of Bengal and along & off West BengalOdisha coasts; (speed reaching 40-50 kmph gusting to 60 kmph) over Northeast Arabian Sea along & off Gujarat-Maharashtra-Goa coasts; Southeast Bay of Bengal and Andaman Sea. Fishermen are advised not to venture into these areas.
- 30 September (Day 3): Heavy to very heavy rainfall very likely at isolated places over Saurashtra & Kutch and Heavy rainfall at isolated places over Uttarakhand, Gangetic West Bengal, Jharkhand, Odisha, Gujarat Region and Tamilnadu, Puducherry and Karaikal. Thunderstorm accompanied with lightning very likely at isolated places over Uttarkhand, East Uttar Pradesh, East Rajasthan, Bihar, Jharkhand, Coastal Andhra Pradesh & Yanam and Tamil Nadu, Puducherry & Karaikal. Squally wind (speed reaching 40-50 kmph gusting to 60 kmph) very likely over Northeast Arabian Sea along & off Gujarat-north Maharashtra coasts. Fishermen are advised not to venture into these areas.
- 01 October (Day 4): Heavy rainfall likely at isolated places over Uttarakhand, Bihar, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Saurashtra & Kutch, Kerala & Mahe and Tamilnadu, Puducherry and Karaikal. Thunderstorm accompanied with lightning likely at isolated places over Uttarkhand, East Uttar Pradesh, East Rajasthan, Bihar, SubHimalayan West

Bengal & Sikkim and Tamil Nadu, Puducherry & Karaikal. Squally weather (wind speed 40-50 kmph to gusting 60 kmph) likely over Northeast Arabian Sea along & off Gujarat coast. Fishermen are advised not to venture into these areas.

- 02 October (Day 5): Heavy to Very Heavy Rainfall likely at isolated places over Tamilnadu, Puducherry & Karaikal and Heavy Rainfall at isolated places over Bihar, Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Coastal Karnataka and Kerala & Mahe. Thunderstorm accompanied with lightning likely at isolated places over Uttarakhand, East Uttar Pradesh, East Rajasthan, Bihar, SubHimalayan West Bengal & Sikkim and Tamil Nadu, Puducherry & Karaikal. Squally weather (wind speed 40-50 kmph to gusting 60 kmph) likely over Northeast Arabian Sea along & off Gujarat coast. Fishermen are advised not to venture into these areas.
- The weather outlook for seven days i.e., 28 Sep to 06 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)**

### **Punjab**

#### **Weather condition:**

The maximum temperature during the week ranged between 27.4-33.8 °C and minimum temperature ranged between 22.6-26.4 °C. The morning and evening relative humidity during the week varied between 83-95 and 60-83%, respectively. The sunshine hours during the week ranged between 1.0-10.0hrs/day. The evaporation rate ranged between 3.0-3.5 mm day<sup>-1</sup>. Daily average wind speed varied from 1.4-4.3 kmhr<sup>-1</sup>.

#### **Contingency measure:**

- Field Crops Rice: Do not irrigate as there are chances of rainfall. To save the rice crop from sheath blight, keep the bunds of the field clean by removing grasses. If the symptoms of disease appears, then spray 150 ml Pulsor or 26.8 g Epic or 80 g Nativo or 200 ml Amistar Top or Tilt or Folicur/Orius in 200 litres of water per acre. · Rouge out and destroy foot rot infected plants from Basmati fields. · To manage rodent pests in rice crop, cover all the holes during evening and next day place 10 -10 gm bait of zinc phosphide inside these fresh holes at 6 inches depth. To get better results adopt this practice in whole village at same time. To protect the crop from false smut, spray 500 g Kocide or 400 ml Galileo way in 200 litres of water per acre. When the leaf folder damage reaches 10 per cent (ETL), this pest

can be controlled by spraying 20 ml Fame 480 SC or 60 ml Coragen 18.5 SC or 170 g Mortar 75 SG or one litre of Coroban/Durmet/Force 20 EC or 80 ml neem based biopesticide, Ecotin in 100 litres of water per acre.

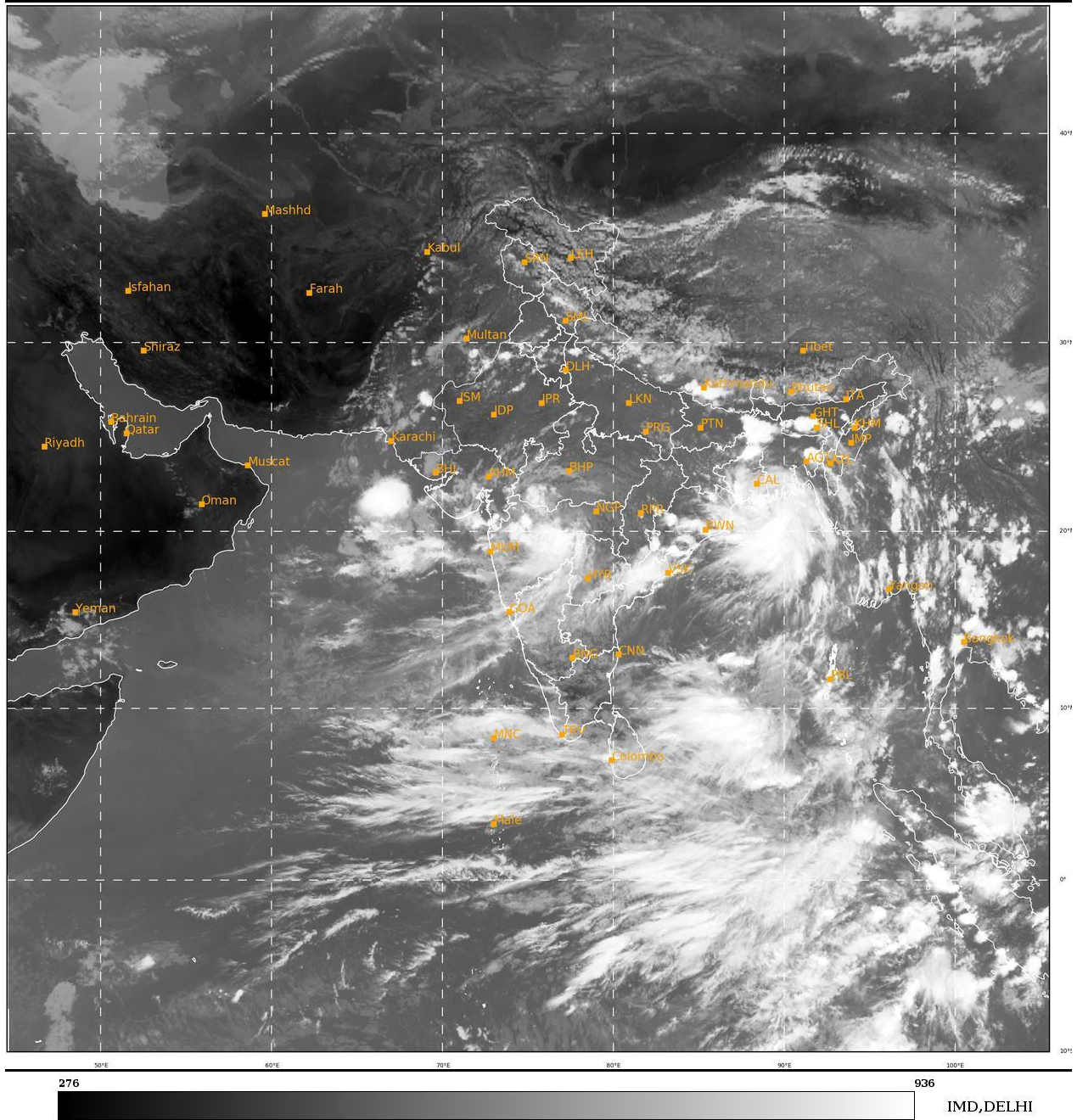
- Cotton: Do not irrigate as there are chances of rainfall. Drain away the excess rain water. Eradicate the weeds growing on cotton field bunds, waste lands, road side and irrigation channels/canals to avoid further spread of whitefly to cotton field. Regular surveillance of whitefly on cotton should also be done. To control pink ballworm, Use Sticka/Delta traps with at least 10 micro litre of gossyplure and place it at 15 cm above crop canopy. Replace the lure after 15 days and use 1 trap/ha.
- Sugarcane: Do not irrigate as there are chances of rainfall. Drain away the excess rain water. For management of sugarcane pyrrilla, use chlorpyrifos 20EC@600ml/acrein 400lt of water. Baru weed being alternate host of mite, remove it if growing around the sugarcane fields to prevent mite spread.
- Maize: Do not irrigate as there are chances of rainfall. Drain away the excess rain .water Control maize borer by spraying 30ml Coragen 18.5SC in 60 litres of water per acre after weather clears up. Trichogramma, a bioagent can also be used as recommended by PAU. To manage fall armyworm on grain crop, spray the crop with Coragen 18.5 SC (@ 0.4 ml or Delegate 11.7 SC @ 0.5 ml or Missile 5 SG @ 0.4 g per litre of water. Direct the spray nozzle towards the whorl, for its effective control.
- Vegetables: Do not irrigate as there are chances of rainfall. Drain away the excess rain water. It is the time for sowing of late season varieties and transplanting of mid season varieties of cauliflower. It is best time for sowing of spinach, fenugreek, coriander, broccoli, radish and turnip. Prevailing weather is favourable for fruit rot and die back disease in chilli. Protect the crop by spraying 250 ml Folicur or 750 g Indofil M 45 or Blitox in 250 litres of water per acre. To check fruit and shoot borer attack in brinjal, spray 80 ml Coragen 18.5 SC or 80 g Proclaim 5SG in 100-125 litres of water per acre.
- FRUITS: Do not irrigate as there are chances of rainfall. Drain away the excess rain water. Planting of evergreen fruit plants such as citrus, guava, mango, litchi, papaya, bael, sapota, pomegranate etc. can be done in this season. Planting should be done properly for better success. Apply white wash mixture containing copper sulphate on the main trunks of fruit trees to protect them from diseases. Regularly remove the suckers arising from the rootstock portion of the newly planted fruit plants and these plants should be supported with sticks to keep them erect during rainy season.



- Animal Husbandry: Animals should be given 40-50 gm mineral mixture in their daily ration. The mineral mixture can be mixed in compounded feeds and then given. It improves immunity status of animals in addition to increasing milk production and productive life of animals. Mineral mixture contains macro-minerals like calcium, phosphorus etc. and micro-minerals like copper, cobalt etc. which helps to improve reproductive efficiency and reduces inter-calving period. · Do not offer mineral mixture or calcium to those animals with only 15-20 days left for calving. These animals should be kept separate from other animals in a calm and clean place. · Seek expert veterinary advice in case an animal faces difficulty in calving. · For those animals who constantly fall ill, blood test should be conducted specially in case of diseases caused by ticks. · To control ticks and mites, insecticidal sprays can be used like cypermethrin, deltamethrin, amitraz (tactic bath) etc. Care should be taken to keep the animals sheds dry and clean during rainy season to prevent mosquitoes and flies as these lead to blood loss and irritation resulting in reduced productivity.

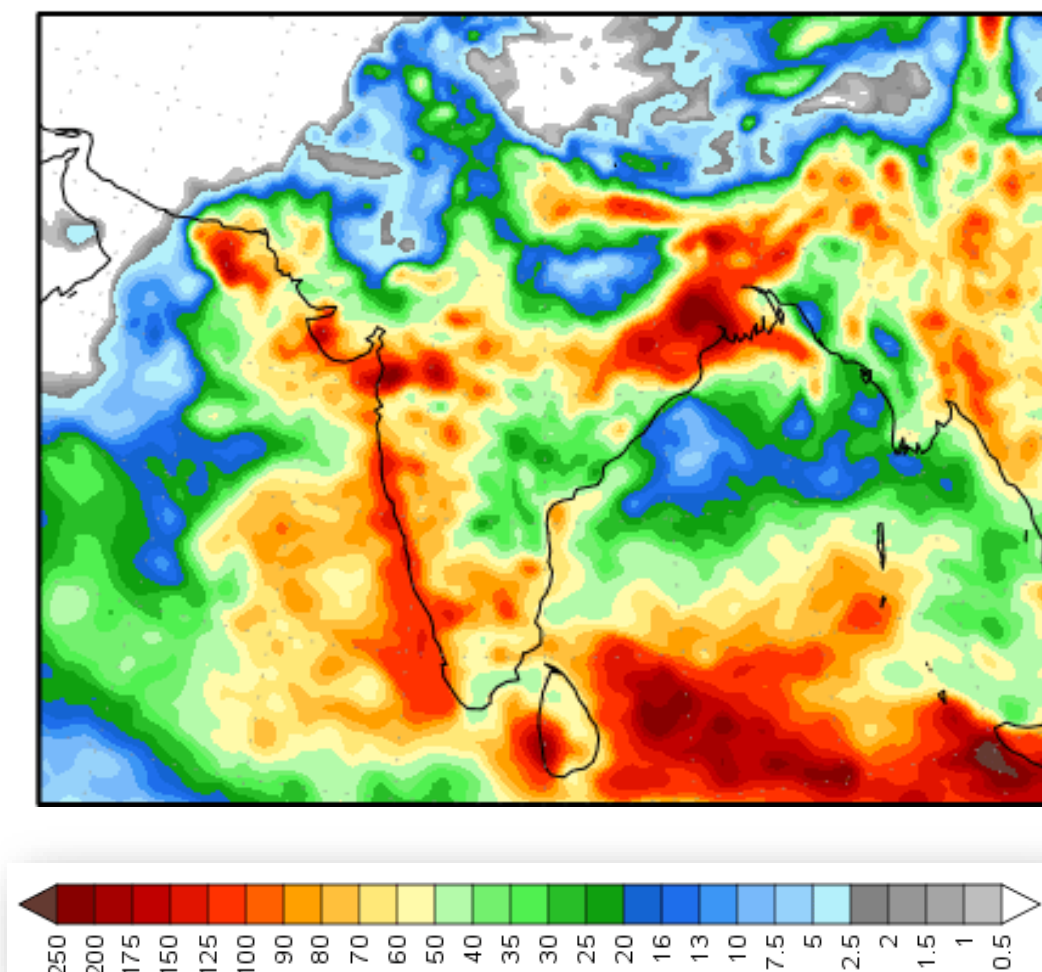
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28-09-2021/(0800 to 0826) GMT  
28-09-2021/(1330 to 1356) IST



**Figure: 1. Latest available satellite picture as on 28 Sep 2021 at 1356 Hrs (IST). (Source: IMD).**





**Figure:2. Precipitation forecast for 28 Sep to 06 Oct 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.*