

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

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

### **Daily Crop Weather Information as on 02 September 2020**

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

- The western end of the Monsoon Trough at mean sea level runs close to foothills of Himalayas and the eastern end lies north of its normal position.
- A cyclonic circulation lies over Gangetic West Bengal & adjoining Jharkhand and another cyclonic circulation lies over Westcentral Bay of Bengal & off South Coastal Andhra Pradesh-north Tamil Nadu coasts in the lower tropospheric levels. Under its influence: i) Fairly widespread rainfall activity with heavy falls and thunderstorm & lightning at isolated places very likely over East & central India during next 2 days. Isolated heavy to very heavy falls also very likely over Northeast Madhya Pradesh and Chhattisgarh during next 24 hours.
- Under the influence of interaction between lower level easterly winds and mid-level westerly trough, Fairly widespread rainfall with Isolated heavy falls and thunderstorm & lightning very likely over Northwest India and Western Himalayan Region on 03rd September, 2020.
- Fairly widespread to widespread rainfall with isolated heavy falls and thunderstorm & lightning very likely over Peninsular India during next 4- 5 days. Isolated heavy to very heavy falls also very likely over south Interior Karnataka, Kerala and Tamilnadu on 02nd & 03rd and Coastal Andhra Pradesh 02nd September, 2020.
- Moderate thunderstorms with lightening very likely over Bihar, West Bengal & Sikkim, Odisha, south Chhattisgarh, coastal Andhra Pradesh , Kerala, Karnataka, North Tamil Nadu and west Assam, Meghalaya, Mizoram, Tripura during next 12 hours.
- The images showing the latest satellite picture in the figure. 1.

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

- Rain/Thundershowers observed (from 0830 hrs IST of yesterday to 0830 hrs of today): at most places over West Bengal & Sikkim, Odisha, Bihar, Jharkhand, South Interior Karnataka, Kerala & Mahe and Lakshadweep; at many places over Andaman, Nicobar Islands, East Uttar Pradesh, Nagaland, Manipur, Mizoram & Tripura, Chhattisgarh, Rajasthan, Konkan & Goa, Coastal Andhra Pradesh 7

Yanam and Coastal Karnataka; at a few places over Gujarat region and Madhya Maharashtra and at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Saurashtra & Kutch, North Interior Karnataka, Assam & Meghalaya, and Tamil Nadu, Puducherry & Karaikal.

- Heavy to Very Heavy rainfall observed at isolated places observed over Chhattisgarh, Coastal Andhra Pradesh & Yanam. ; Heavy rainfall at isolated places over South Interior Karnataka.
- Thunderstorm observed (from 0830 hours IST of yesterday to 0830 hrs IST of today): at isolated places over Assam & Meghalaya, Bihar, Jharkhand, South interior Karnataka, Kerala & Mahe, Tamilnadu, Puducherry & Karaikal, Odisha, Coastal Andhra Pradesh & Yanam, Rayalaseema and Gangetic West Bengal.
- Maximum Temperature Departures as on 01-09-2020: Maximum temperatures were appreciably above normal (3.1°C to 5.0°C) at most places over Chhattisgarh; at a few places over Arunachal Pradesh and at isolated places over Assam & Meghalaya; above normal (1.6°C to 3.0°C) at most palaces over East Madhya Pradesh, Vidarbha, Telangana, Coastal & North Interior Karnataka; at many places over Uttarakhand, Coastal Andhra Pradesh, West Madhya Pradesh, Madhya Maharashtra, Kerala & Mahe; at a few places over Himachal Pradesh, East Uttar Pradesh, Jharkhand, Odisha, Marathwada, Rayalaseema and Andaman & Nicobar Islands and at isolated places over Sub-Himalayan West Bengal & Sikkim, Bihar, Saurashtra & Kutch, West Uttar Pradesh and Tamilnadu, Puducherry. They were appreciably below normal (-3.1°C to -5.0°C) at most places over West Rajasthan; at a few places over East Rajasthan and Haryana, Chandigarh & Delhi; below normal (-1.6°C to -3.0°C) at a few places over Gangetic West Bengal and at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Punjab and Gujarat and near normal over rest parts of the country. Yesterday, the highest maximum temperature of 37.5°C was reported at K. Paramathy (Tamil Nadu).
- Minimum Temperature Departures as on 02-09-2020: Minimum temperatures are above normal (1.6°C to 3.0°C) at most places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad and Uttarakhand; at many places over Himachal Pradesh and Telangana; at a few places over Arunachal Pradesh, Punjab, Uttar Pradesh, south Interior Karnataka, Lakshadweep and East Madhya Pradesh and at isolated places over Assam & Meghalaya, Vidarbha, Gujarat State, Madhya Maharashtra, Marathawada and North Interior Karnataka. They are below normal (-1.6°C to -3.0°C) at a few places over Gangetic West Bengal and Odisha and at isolated places over West Madhya Pradesh and Tamil Nadu, Puducherry &

Karaikal and near normal over rest parts of the country. The lowest minimum temperature of 15.3°C was reported at Coonoor (Tamil Nadu) over the plains of the country.

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

- 02 September (Day 1): Heavy to very heavy rainfall very likely at isolated places over Northeast Madhya Pradesh, Chhattisgarh, Coastal Andhra Pradesh & Yanam, South Interior Karnataka, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe and heavy rainfall at isolated places over Kumaon region of Uttarakhand, East Uttar Pradesh, Odisha, Assam & Meghalaya, Telangana, Rayalaseema, Coastal & North Interior Karnataka and Lakshadweep. Thunderstorm accompanied with lightning very likely at isolated places over Uttarakhand, Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Jharkhand, Gangetic West Bengal, Odisha, Assam & Meghalaya, Madhya Maharashtra, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Karnataka, Tamilnadu, Puducherry & Karaikal and Kerala & Mahe. Strong Wind (speed reaching 45-55 kmph) very likely over Southwest Arabian Sea. Squally weather with wind (speed reaching 40-50 kmph) Andaman Sea and adjoining southeast Bay of Bengal, westcentral & southwest Bay of Bengal & adjoining and along off Tamil Nadu & Andhra Pradesh coasts and southeast Arabian Sea and along off Kerala & Lakshadweep coasts, Comorin area and Gulf of Mannar. Fishermen are advised not to venture into these areas.
- 03 September (Day 2): Heavy to very heavy rainfall very likely at isolated places over South Interior Karnataka, Tamilnadu, Puducherry & Karaikal and Kerala & Mahe and heavy rainfall at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, West Uttar Pradesh, Rajasthan, Madhya Pradesh, Rayalaseema, Konkan & Goa, Lakshadweep and Coastal & North Interior Karnataka. Moderate to severe Thunderstorm accompanied with lightning very likely at isolated places over Jammu & Kashmir, Ladakh, GilgitBaltistan, Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, Rajasthan and Thunderstorm accompanied with lightning at isolated places over Madhya Pradesh, Vidarbha, Jharkhand, Odisha, Madhya Maharashtra, Marathwada, Konkan & Goa, Telangana, Rayalaseema, Karnataka, Tamilnadu, Puducherry & Karaikal and Kerala & Mahe. Strong Wind (speed reaching 45-55 kmph) very likely over Southwest Arabian Sea and Squally weather with wind (speed reaching 40- 50 kmph) southeast Arabian Sea. Fishermen are advised not to venture into these areas.

- 04 September (Day 3): Heavy rainfall likely at isolated places over Rajasthan, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Sub-Himalayan West Bengal & Sikkim, Madhya Maharashtra, Konkan & Goa, Karnataka, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe. Thunderstorm accompanied with lightning likely at isolated places over Uttar Pradesh, Rajasthan, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra, Marathwada, Rayalaseema, Konkan & Goa and Tamil Nadu, Puducherry & Karaikal. Strong Wind (speed reaching 45-55 kmph) very likely over Southwest Arabian Sea. Fishermen are advised not to venture into these areas.
- 05 September (Day 4): Heavy rainfall likely at isolated places over Assam & Meghalaya, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe and South Interior Karnataka. Thunderstorm accompanied with lightning likely at isolated places over Bihar, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra, Marathwada, Konkan & Goa, Coastal Andhra Pradesh & Yanam, Rayalaseema and Tamilnadu, Puducherry & Karaikal. Strong Wind (speed reaching 45-55 kmph) very likely over Southwest Arabian Sea. Fishermen are advised not to venture into these areas.
- 06 September (Day 5): Heavy to very heavy rainfall likely at isolated places over Sub-Himalayan West Bengal & Sikkim and heavy rainfall at isolated places over Uttarakhand, East Uttar Pradesh, Bihar, Madhya Maharashtra, Coastal & South Interior Karnataka, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe. Thunderstorm accompanied with lightning likely at isolated places over Bihar, Gangetic West Bengal, Odisha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra, Marathwada, Konkan & Goa, Coastal Andhra Pradesh & Yanam, Rayalaseema and Tamil Nadu, Puducherry & Karaikal. Strong Wind (speed reaching 45-55 kmph) very likely over Southwest Arabian Sea. Fishermen are advised not to venture into these areas.
- The weather outlook for seven days i.e., 02 to 10 Sep 2020 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)**

### **North Karnataka**

### Weather condition:

Partly cloudy condition prevailed and deficit to normal rainfall has been received in almost all the districts except Raichur district where heavy rainfall has been received in the North Interior Karnataka during the previous week.

### Contingency measure:

- Weather Based advisories Plant Protection: As per the forecast given by the India Meteorological Department, partly cloudy condition with moderate rainfall is expected at some places in the District during the next five days. Plant protection measures may be taken up carefully in the morning hours, mixing adhesive gum in the spray mixture.
- *Kharif* sowing: Very light amount of rainfall has been received at some places during the previous week. As per the forecast partly cloudy condition with moderate rainfall is expected at some places in the District during the next five days. Wherever, soil moisture is sufficient take up sowing of the following crops, immediately. Sowing of Horsegram, sunflower, may be taken up.
- Soil and moisture conservation: Sow the crop in rows across the slope. This will facilitate better conservation of moisture in the soil. Repair of bunds, water retention structures should be taken up. Plough the land across the slope or make compartment bunds in the land which is to be spared for sowing of Rabi crops so as facilitate better conservation of Soil and soil moisture. Take up intercultivation and hand weeding in all the crops, which facilitates conservation of moisture in the soil.
- Live stock management: Vaccinate livestock against Foot and Mouth disease (FMD vaccination), Black Quarter disease (BC vaccination) and Haemorrhagic Septicaemia. Care should be taken that excess moisture is not there in the Vermin-compost pits. Vaccinate (ET vaccine) sheep and goats against Enterotoxemia. Maintain sufficient moisture in the vermicompost pits.
- Agro- advisories FIELD CROPS: Sunflower: Before sowing, soak the every one Kg of sunflower seeds in a solution prepared by dissolving 30 g of Calcium Chloride in 1.5 liter of water for 6 hours, shade dry and treat with Imidachloprid insecticide at the rate of 5.0 g and Azospirillum at the rate of 40 g of per Kg of seed. This will improve the germination percentage, vigour of the seedlings and yield. In addition, it will induce drought resistance in the crop and also help to save 25 per cent Nitrogen requirement of the crop. To manage Necrosis, uproot and destroy the infected plants and take up spraying of 0.5 ml Imidachloroprid dissolved in one liter of water to the crop.
- Pigeonpea: Take up weeding, intercultivation and top dressing with DAP if there is sufficient soil moisture in the soil. Take up Nipping (Removing the terminal bud) in

the crop of 0f days which facilitates branching in pigeon pea. To manage Pod borer insect in pigeonpea, the following measures should be followed. Erect the branched wooden poles (taller than the crop) in the field so as to facilitate the birds to sit on it and they can easily see the larvae of *Helicoverpa* pod borer and eat them. Install 4-5 Furomen traps in one acre of pigeonpea field to attract moths and thus they are killed in the trap. If more than 10 moths are found per trap or one to two eggs or one larva of pests are found on the flowering plant, then take up control measures. If more than one egg of the pest are noticed per plant, take up spraying of ovicidal insecticide Methomyl 40 SP, 0.75 gram or Prophenophas 50 EC, 2 ml dissolved in one liter of water. If more than one larvae are found per plant- shake the plant vigorously- collect the larvae fallen on the ground and kill them. Remove the grown up larvae by hand picking and kill. As second spray, spray the crop with 5 per cent neem seed extract or 0.5 per cent chilli extract or 0.25 per cent garlic extract. If the neem seeds are not available, then, take up spraying of any neem based insecticide at the rate of 2 ml per liter of water. As a third spray, take up spraying of NPV, bio insecticide, at the rate of 100 LE per acre i.e., 0.75 ml per liter of water. Mix 100 gram blue powder and 500 gram Jaggery to the solution being used for one acre. Take up spraying in the early morning or late evening hours. As a fourth spray, take up spraying of 1 ml Monocrotophos or 2.5 ml Chlorpyrifos or 2 ml Quinolphos dissolved in one liter of water. Do not use the same insecticide repeatedly. Purchase the insecticides from authorized seller only. Use only hand operated pumps for spraying. Do not use power sprayer or battery operated pumps. Uproot and destroy wilt infected plant

- Sugarcane: To manage striga weed, irrigate the crop, spread sugarcane trash in between the rows and take up spraying of 1 kg of 2,4 D dissolved in 500 liter on the weed. Apply 8-10 kg Zinc Sulphate and 8-10 Kg Iron sulphate per acre.
- Onion: To manage sucking pests take up spraying of 0.2 gram Thiamethaxam dissolved in one liter of water. To manage leaf tip burning disease, take up spraying of 1 gram Boran + 2.0 gram combination fungicide of Hexakonozole and Capton + 0.2 gram Thiamethaxam dissolved in one liter of water. To manage Downey mildew take up spraying of 2.5 ml Metalaxyl dissolved in one liter of water. To manage lodging of seedlings due to root rot take up drenching of 2 gram Blitox + 0.5 gram Streptomycin Sulphate dissolved in one liter of water around the roots of the infected seedling, by loosening the nozzle of the hand sprayer.
- Maize: To manage Fall army worm, spray the crop with 2 ml Rhinaxiphire or 2 gram Imamectin Benzoate or 4.0 ml Phynoteron dissolved in 10liters of water.

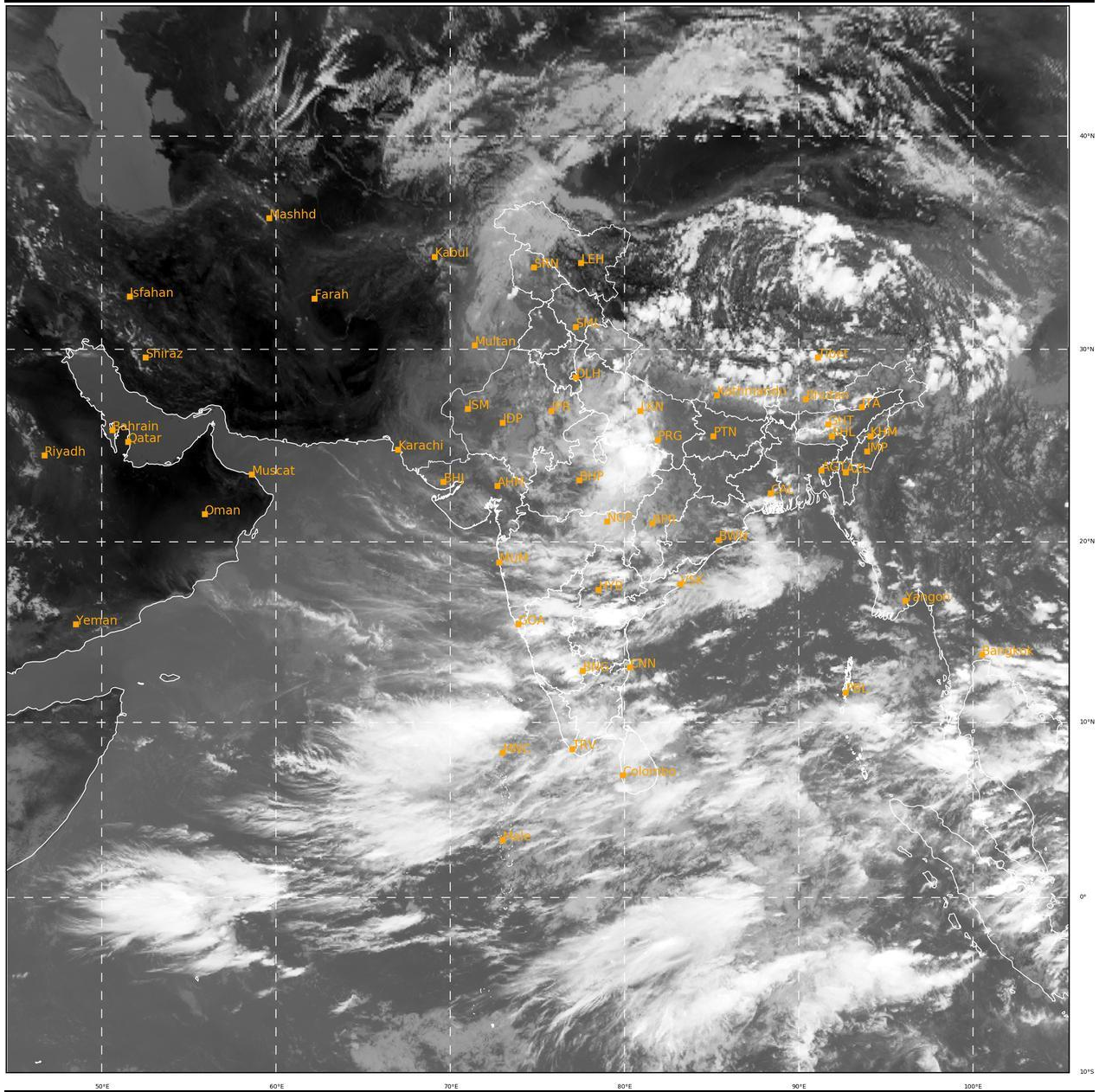
- Cotton/Pigeonpea/Ground nut: To manage sucking pests, take up spraying of 0.3 ml Imidachloprid or 0.25 gram Thiomethoxam dissolved in one liter of water.
- Ground nut: If iron and zinc deficiency was noticed on the crop. Immediately take up Foliar Spray of 0.5 % Ferrous sulphate or 0.5 % Zinc sulphate. To manage leaf minor take up spraying of Carbaryl 50WP 0.2% Spray or Dimethoate 30 EC (2 ml/lit).
- Cotton: To manage leaf spot disease, take up spraying of 2 gram Dithane M-45 or 1 ml Hexaconazole dissolved in one liter of water. To manage sucking pests, take up spraying of 0.25 gram Acetamaprid or 0.25 gram Thiamethaxam dissolved in one liter of water. To manage stem weevil, spray the crop with 2 ml Propenophos 50 EC + 0.5 ml DDVP 76 EC dissolved in one liter of water. To reduce the incidence of pink Boll worm, take up spraying of 5 % Neem orgin insecticide 4-5 ml dissolved in one liter of water at the time of flowering.
- HORTICULTURAL CROPS: Citrus: To manage Bacterial blight disease, spray the crop with 3 gram Copper Oxy-chloride or 1 per cent Bordo mixture dissolved in one liter of water or 300 ppm Streptomycin (3 gram in 10 liters of water. To manage leaf minor in citrus, take up spraying of 0.3 ml Indaxicarb or 0.2 gram Emamectin Benzoate, dissolved in one loiter of water. To manage Mites spray the crop with 0.75 ml Spiromecifen dissolved in one liter of water. To manage Gummosis and wilt diseases, paste the gum prepared by mixing 4 gram Ridimil gold + 3 gram Blitox + 50 gram Red Oxide in one liter of water and pour 2-3 liters of mixture prepared by dissolving 5 ml Hexaconazole in one liter of water at the bottom of the plant.
- Grapes: To manage Anthracnose disease, take up spraying of I ml Thiophenate Methyl dissolved in one liter of water. To manage Downey mildew, take up spraying of 1.5 ml Tebuconozole or 2 gram Metalaxyl or 2 gram Potassium salt of Phosphorus dissolved in one liter of water, Repeat the same spray after 10-12 day. To manage Powdery mildew, take up spraying of 1 ml Amistar, or 1.5 m l Picoxystrobin dissolved in one liter of water or one per cent Bordomixture.
- Pomegranate: To manage sucking pests, take up spraying of 0.3 ml Imidacloprid or 0.25 ml Thiamethaxam dissolved in one liter of water. To manage Bacterial blight disease, spray the crop with streptomycin sulphate 0.5 g. + copper oxychloride 2 g. dissolved in one liter water. Then take up spraying of micro nutrients viz., 1 g. Zinc Sulphate + 1 g. Magnesium Sulphate + 1 g. Barax + 1 g. Calcium dissolved in one liter of water. To manage Fruit rot take up spraying of 1 ml Ketazin or 3 gram Capritop or 1 ml Difenaconazole dissolved in one liter of water.
- Bhendi and tomato: To manage sucking pests in Bhendi and Tomato, take up spraying of 1.7 ml Dimethoate or 2 ml Melathion and 1 per cnet Joggerly syrup

dissolved in one liter of water. To manage leaf minor in Tomato, take up spraying of 1 ml Cyhalophrin dissolved in one liter of water. To manage Alternaria leaf spot, take up spraying of 1 ml Hexaconazole or 1 ml Diphenaconazole. dissolved in one liter of water. Brinjal ? To manage branch cutting and fruit borer in Brinjal, remove the infested branch along with the larva and burn. After this spray the crop with Carbaryl 4 g. or Melathion 2 ml or Quinolphos 2 ml dissolved in one liter of water. Repeat the same spray at 15 days interval.



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

02-09-2020/(0800 to 0827) GMT  
02-09-2020/(1330 to 1357) IST

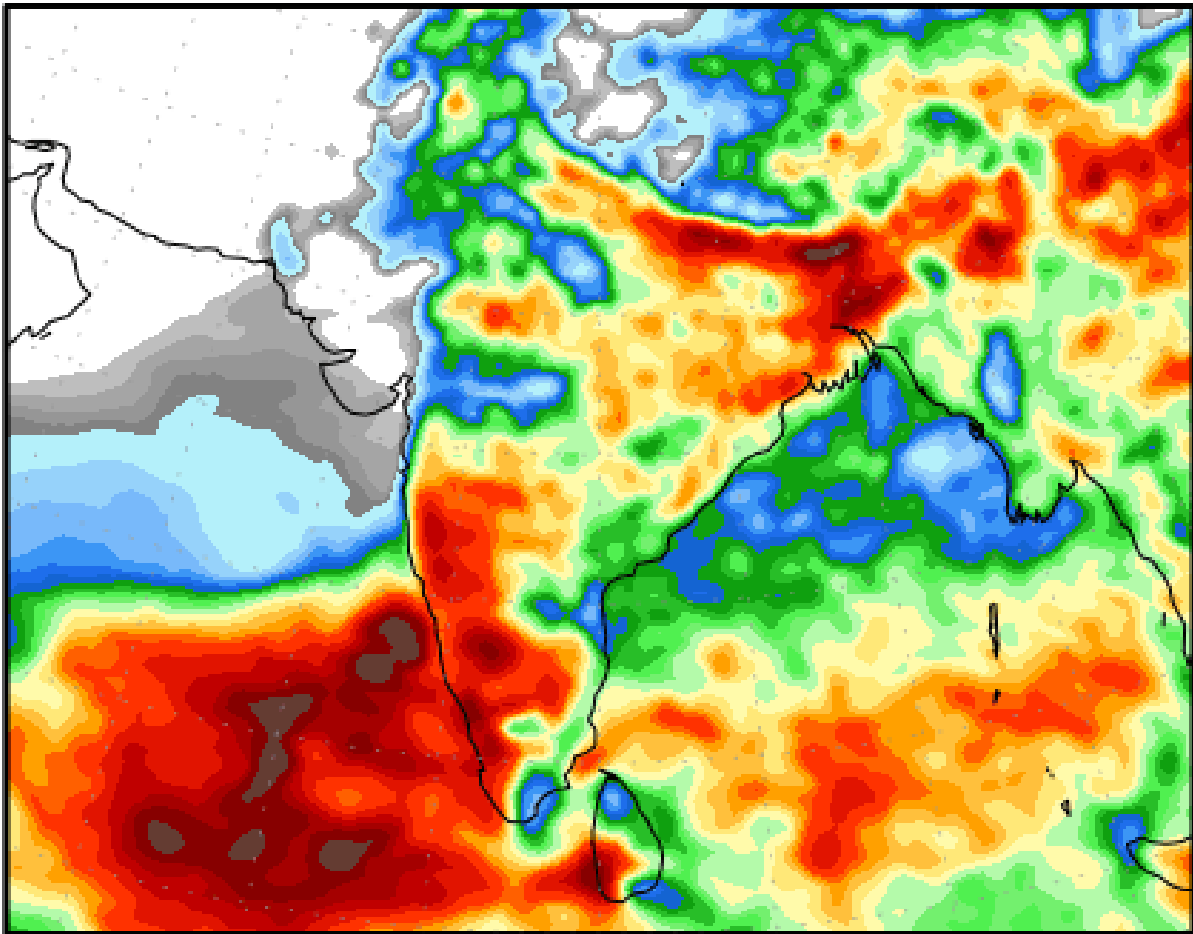


255

942

IMD, DELHI

**Figure: 1. Latest available satellite picture as on 02 September 2020 at 1357 Hrs (IST). (Source: IMD).**



**Figure:2. Precipitation forecast for 02 to 10 Sep 2020 (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.*