

**All India Coordinated Research Project on Agrometeorology**  
**CRIDA, Santoshnagar, Hyderabad – 500 059**

**Daily Crop Weather Information as on 21 April 2022**

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

**Significant Weather Features (IMD)**

- Rainfall/thunderstorm Forecast & Warnings:
- Under the influence of strong southwesterly winds from Bay of Bengal to northeastern States at lower tropospheric levels:
  - i) Scattered/fairly widespread rainfall very likely over Arunachal Pradesh, Assam-Meghalaya, Nagaland-Manipur-Mizoram-Tripura and Sub-Himalayan West Bengal & Sikkim with thunderstorm/lightning/gusty winds during next 5 days.
  - ii) Isolated heavy rainfall likely over Sikkim on 22nd; over Assam-Meghalaya & Arunachal Pradesh during 22nd-24th April, 2022 and isolated hailstorm/squall (speed 50-60 kmph) also likely over Assam-Meghalaya and Sub-Himalayan West Bengal-Sikkim on 22nd April.
  - iii) Isolated to scattered rainfall with thunderstorm/lightning/gusty winds very likely over Bihar, Jharkhand, Gangetic West Bengal & Odisha during next 2-3 days and isolated hailstorm also likely over Jharkhand on 22nd April.
- Under the influence of the Western Disturbance as a trough in mid & upper tropospheric westerlies with its axis at 5.8 km above mean sea level roughly along Long.68°E to the north of Lat.20°N:
  - i) Light scattered/fairly widespread rainfall accompanied with isolated thunderstorm/lightning/gusty winds very likely over JammuKashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand during next 2 days. Isolated hailstorm & squall (speed 50-60 kmph) also likely over Uttarakhand on 21st & 22nd April.
  - ii) Light isolated rainfall with thunderstorm/lightning/gusty winds likely over Punjab, Haryana-Chandigarh-Delhi, Uttar Pradesh, Madhya Pradesh & Rajasthan during next 12 hours.
- Duststorm/Thunderstorm at isolated places very likely over Rajasthan & Uttar Pradesh on 21st April, 2022.
- A fresh feeble Western Disturbance very likely to affect Western Himalayan Region from the night of 24th April, 2022.

- Under the influence of a trough from North Interior Karnataka to Comorin Area in lower tropospheric levels; isolated to scattered rainfall accompanied with thunderstorm/lightning/gusty winds very likely over Kerala-Mahe, Tamil Nadu-Puducherry-Karaikal, Coastal Andhra Pradesh, Karnataka & Telangana during next 5 days.
- Heat wave conditions very likely to prevail in isolated pockets over Uttar Pradesh during 23rd-25th and over and west Rajasthan and West Madhya Pradesh on 24th & 25th April, 2022.
- 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 many places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Sub-Himalayan West Bengal-Sikkim; at a few places over Assam-Meghalaya, Nagaland-Manipur-Mizoram-Tripura and Lakshadweep and at isolated places over Himachal Pradesh, Uttarakhand, Punjab, north Haryana, north Rajasthan, Konkan & Goa, Madhya Maharashtra, Marathwada, Bihar, Jharkhand, Gangetic West Bengal, Odisha, Andaman & Nicobar Islands, Coastal Andhra Pradesh, Rayalaseema and Kerala & Mahe.
- Thunderstorm observed (from 0830 hours IST of yesterday to 0830 hours IST of today): at isolated places over Gujarat state, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, East Rajasthan, Tripura, Assam & Meghalaya, Sub-Himalayan West Bengal-Sikkim, East Rajasthan, Odisha, Konkan & Goa and Lakshadweep.
- Hailstorm observed at isolated places over Pulwama.
- Duststorm (speed reaching 90 kmph) observed at isolated places over Jaisalmer.
- Heat wave conditions were observed in isolated pockets over Himachal Pradesh, Haryana-Delhi, Madhya Pradesh and west Jharkhand.
- Maximum Temperature Departures (as on 20-04-2022): Maximum temperatures were markedly above normal (5.1°C or more) at most places over Himachal Pradesh; appreciably above normal (3.1°C to 5.0°C) at most places over Punjab, Haryana, Chandigarh & Delhi and East Madhya Pradesh; at many places over West Madhya Pradesh, Uttar Pradesh, Jharkhand and Chhattisgarh; at a few places over Telangana and Vidarbha; at isolated places over Jammu-Kashmir-Ladakh-GilgitBaltistan-Muzaffarabad, Odisha, Saurashtra & Kutch, Rajasthan and Arunachal Pradesh; above normal (1.6°C to 3.0°C) at most places over Coastal Karnataka; at many places over Madhya Maharashtra and Marathwada; at a few

places over Konkan & Goa and Coastal Andhra Pradesh & Yanam; at isolated places over Tamil Nadu-Puducherry-Karaikal. They were markedly below normal ( $-5.1^{\circ}\text{C}$  or less) at isolated places over Sub-Himalayan West Bengal & Sikkim and Nagaland-Manipur-Mizoram-Tripura; appreciably below normal ( $-3.1^{\circ}\text{C}$  to  $-5.0^{\circ}\text{C}$ ) at isolated places over Bihar and Assam & Meghalaya; below normal ( $-1.6^{\circ}\text{C}$  to  $-3.0^{\circ}\text{C}$ ) at isolated places over Gangetic West Bengal and near normal over rest parts of the country.

- Yesterday, the highest maximum temperature of  $45.3^{\circ}\text{C}$  was reported at Brahmapuri (Vidarbha).
- Minimum Temperature Departures (as on 21-04-2022): Maximum temperatures are markedly above normal ( $5.1^{\circ}\text{C}$  or more) at many places over West Rajasthan; at a few places over Haryana, Chandigarh & Delhi and East Rajasthan; at isolated places over West Madhya Pradesh; appreciably above normal ( $3.1^{\circ}\text{C}$  to  $5.0^{\circ}\text{C}$ ) at most places over Uttarakhand, Punjab and Jharkhand; at many places over Marathwada; at isolated places over Himachal Pradesh, West Uttar Pradesh, East Madhya Pradesh, Odisha, Saurashtra & Kutch and Madhya Maharashtra; above normal ( $1.6^{\circ}\text{C}$  to  $3.0^{\circ}\text{C}$ ) at most places over Chhattisgarh and Gujarat Region; at many places over Kerala & Mahe and Vidarbha; at a few places over West Bengal & Sikkim, Telangana, North Interior Karnataka and Tamil Nadu-Puducherry-Karaikal; at isolated places over East Uttar Pradesh and Coastal Andhra Pradesh & Yanam. They are below normal ( $-1.6^{\circ}\text{C}$  to  $-3.0^{\circ}\text{C}$ ) at many places over Nagaland, Manipur, Mizoram & Tripura; at isolated places over Assam & Meghalaya and near normal over rest parts of the country.
- Today, the lowest minimum temperature of  $20.4^{\circ}\text{C}$  is reported at Pantnagar (Uttarakhand) over the plains of the country.

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

- 21 April (Day 1): Thunderstorm accompanied with lightning, hail & squall (speed 50-60 kmph) at isolated places very likely over Uttarakhand; with lightning /gusty winds (speed 40-50 kmph) at isolated places over Punjab, Haryana, Chandigarh & Delhi, Madhya Pradesh, Odisha, Nagaland, Manipur, Mizoram & Tripura; with lightning/gusty winds (speed 30-40 kmph) at isolated places over Jammu, Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Vidarbha, Chhattisgarh, Jharkhand, Gangetic West Bengal, Assam-Meghalaya, Telangana and with lightning at isolated places over Bihar, Sub-Himalayan West Bengal & Sikkim, Konkan & Goa, Madhya Maharashtra, Marathawada, Coastal Andhra Pradesh, Karnataka, Tamil Nadu, Puducherry & Karaikal and Kerala-Mahe. Thunderstorm accompanied with lightning/Duststorm (speed 40-50 kmph) at isolated places very likely over Rajasthan and Uttar Pradesh.

- 22 April (Day 2): Thunderstorm accompanied with lightning, hail & squall (speed 50-60 kmph) at isolated places very likely over Uttarakhand, Assam-Meghalaya; with lightning, hail & gusty winds (speed 40-50 kmph) at isolated places over SubHimalayan West Bengal & Sikkim, Jharkhand; with lightning/gusty winds (speed 40-50 kmph) at isolated places over Gangetic West Bengal, Nagaland, Manipur, Mizoram & Tripura; with lightning/gusty winds (speed 30-40 kmph) at isolated places over Jammu, Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Vidarbha, Chhattisgarh, Arunachal Pradesh, Telangana and with lightning at isolated places over East Madhya Pradesh, Bihar, Odisha, Konkan & Goa, Madhya Maharashtra, Marathawada, Coastal Andhra Pradesh, Karnataka, Tamil Nadu, Puducherry & Karaikal and Kerala-Mahe. Heavy rainfall at isolated places very likely over Sikkim, Assam-Meghalaya and Arunachal Pradesh.
- 23 April (Day 3): Thunderstorm accompanied with lightning/gusty winds (speed 40-50 kmph) at isolated places very likely over Assam-Meghalaya; with lightning/gusty winds (speed 30-40 kmph) at isolated places over Nagaland, Manipur, Mizoram & Tripura, Telangana and with lightning at isolated places over Vidarbha, Chhattisgarh, Odisha, Sub-Himalayan West Bengal & Sikkim, Konkan & Goa, Madhya Maharashtra, Marathawada and Kerala-Mahe. Heavy rainfall at isolated places very likely over Assam-Meghalaya and Arunachal Pradesh. Heat wave conditions in isolated pockets very likely over Uttar Pradesh.
- 24 April (Day 4): Thunderstorm accompanied with lightning/gusty winds (speed 40-50 kmph) at isolated places likely over Assam-Meghalaya and with lightning at isolated places over Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, south Konkan & Goa, Telangana and Kerala-Mahe. Heat wave conditions in isolated pockets likely over West Madhya Pradesh, West Rajasthan and Uttar Pradesh. Heavy rainfall at isolated places likely over Assam-Meghalaya and Arunachal Pradesh.
- 25 April (Day 5): Thunderstorm accompanied with lightning/gusty winds (speed 30-40 kmph) at isolated places likely over Assam-Meghalaya and with lightning at isolated places over Jammu, Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, south Konkan & Goa, Telangana, Karnataka and Kerala-Mahe. Heat wave conditions in isolated pockets likely over West Madhya Pradesh, West Rajasthan and Uttar Pradesh
- The weather outlook for seven days i.e., 21 Apr to 29 Apr 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 31.0 to 31.7 °C and 13.5 to 20.0 °C which was above normal by 5.9 to 7.7 °C and 0.4 to 5.9 °C, respectively. 2.8 mm rainfall was received during the week against the normal of 12.9 mm. The relative humidity varied between 24-63 % and sunshine hours between 4.0-11.0 hrs/day with variable sky conditions (Octa 0-6). The evaporation rate varied 6.0-8.8 mm per day.

#### Contingency measure:

- Rabi Crops: Wheat: Temperature is increasing so advised to arrange irrigation in wheat crop in milking and grain filling stage if rains not took place. Keep inspecting your crop for yellow rust. In areas where symptoms of yellow rust are appears in the wheat crop in the form of yellow powder/stripes on the leaves then the farmers are advised to spray Tilt @ 1ml per liter of water with the appearance of the symptoms. For chemical weed control in wheat, spray Vesta @ 16 g or clodinafop @ 24 g (10WP) or 16 g (15 WP) per kanal after 35-40 days of sowing i.e. 2-3 leaf stage of weed. After 2-3 days of clodinafop spray, apply 2,4-D @ 50 gm/Kanal. Use 30 litres of water for making a solution for one hectare. In areas where symptoms of yellow rust are appears in the wheat crop in the form of yellow powder/stripes on the leaves or susceptible varieties then the farmers are advised to spray the fungicides with the appearance of the symptoms. Weeding, hoeing and irrigation should be done in crop as per the requirement. Weather conditions are congenial for infection, development and spread of yellow rust disease therefore monitor the crop. If disease is noticed in the field, apply Tilt 25 EC (Tilt) or Markzole 25 EC (propiconazole) @ 200 ml in 200 L of water per acre.
- Mustard: Farmers are advised for monitoring of mustard crop against attack of white rust, aphids and painted bug attack. If infection is high than spraying of Dithane-M-45 @ 2 gram/ litre of water of water is advised.
- Pulses: Sowing moong and mash in irrigated areas advised. In rainfed region ensure proper moisture before sowing for optimum germination. Farmers are advised for sowing of Arkel variety of Pea, Spacing: 60X7.5 cm. Farmers are advised for sowing of main season crop of pea. Recommended varieties are GS-10, AS-10, Him palam matar-1, SP-6 etc. Pulse crop are ready for harvest, after proper sun drying store at proper grain moisture. Field preparation should be started for early pea and farmers are advised to do arrangement for quality

seeds. Treat the seed with Bavistin 50 WP (2.5 g/kg of seed) before sowing.

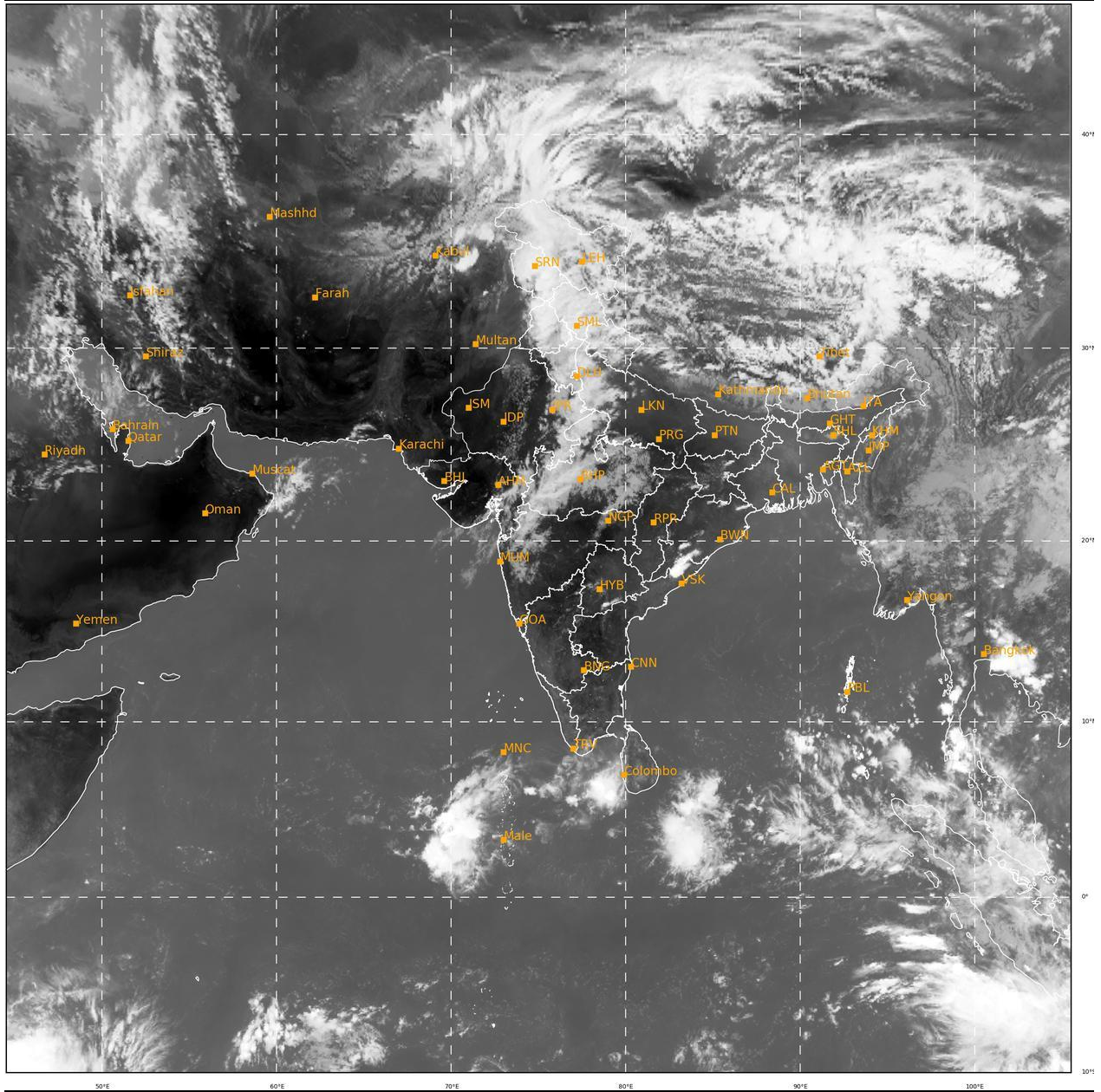
- Pea Crop: Keep monitoring of pod borer in the pea crop, install/place 2-3 pheromone trap per bigha. Spray 2% (20 gram in one litre) solution of urea or potassium sulphate in pea crop, this leads to increases in number of pods and also prevents the crop from frost.
- Fodder Crops: The hay making process should be started and grasses may cut before flowering and dry during sunny days. Sowing of fodder crops such as oats and Lucerne is advised. Intercultural operations on already sown berseem, lucerne and oats for fodder of rabi season are advised.
- Vegetables: In vegetables and other crops there are chances of termites so farmers are advised to go for the spray of chlorpyrifos 20 EC @ 4.0 millilitre per litre of water. Sowing of frenchbean, coriander, okra is advised. At the time of sowing, add about 100 qwell rotten FYM, 156 kg IFFCO (12:32:16), 50kg 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. It is the best time to grow nursery, so farmers are advised to go for the seed sowing of tomato, capsicum, cucumber, brinjal, chilli etc. But before sowing the seeds should be treated with Bavistin 2.5 grams per kg of seed so that the crop can be protected from harmful diseases. For the control of this diseases spray Mencozeb @ 2.5 gram per litre of water.
- Cauliflower: Farmers in high hilly areas are advised to prepare nursery of late group of cole crops. Recommended varieties of cauliflower is Snowball group and recommended varieties of Broccoli is Lucky, KTS-1etc. Harvest mature cauliflower crops to avoid damage due to rise in temperature and direct sunlight (flower develop purple coloration ) in the mid hills.
- Tomato: Prepare nursery for summer vegetables like tomato (varieties like Anshul, Abhimanyu, US-920, Palam Tomato Hybrid-1), Brinjal, Capsicum (Paladin) and early crop of cucumber (Cucumber varieties like 6125, Log Green etc.) in poly tunnel or in poly trays.
- Onion: Do Weeding and hoeing of onion and garlic. In onion and garlic crop, farmers should go for spray of fertilizer 19:19:19 @ 2 g/Litre in proper soil moisture.
- Polyhouse: Optimum time for sowing of cauliflower, cabbage, tomato and capsicum in nursery beds. About 70 cm of distance should be kept between two beds to carry out intercultural operations such as watering, weeding, etc. Polyhouse should be kept closed to maintain temperature. Clean the polyhouse and prepare beds for vegetative nursery for the sowing of seeds of cauliflower, cabbage, tomato, capsicum and cucumber. To avoid mortality of seedlings due to

damping off, drenching of the beds three weeks before sowing with Bavistin (15-20g/10 litres of water) is recommended.

- Potato: Potato crop should be monitored continuously to prevent the attack of late blight disease. Do the grading of potatoes before sending them to the market. Farmers are advised to go for sowing of potato crop with seed rate of 1.5-2 q/bigha recommended varieties are kufri Jyoti and kufri chandermukhi. The first symptoms of late blight in the field are small, light to dark green, circular to irregular-shaped water-soaked spots. These lesions usually appear first on the lower leaves. Lesions often begin to develop near the leaf tips or edges, where dew is retained the longest. This can be identified by blackish/brown lesions on leaves and stems that may be small at first and appear water-soaked or have chlorotic borders but expand rapidly and the entire leaf becomes necrotic. For the control of this disease go for the spray of Dithane @ 2.5 gram per litre of water as suggested by agricultural scientists.
- Mushrooms: Fungal Disease: Bavistin @.05% for mushroom cultivation (Dhingri), the room temperature should be 22-24 degree Celsius, spray water to maintain humidity up to 80-85%. When there is fruiting in button mushroom maintain room temperature up to 16-18 degree Celsius. Rice husk is best for the cultivation of mushroom. Dingri can be sown in closed room and fill compost bags with span for button mushrooms.

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

21-04-2022/(0800 to 0826) GMT  
21-04-2022/(1330 to 1356) IST



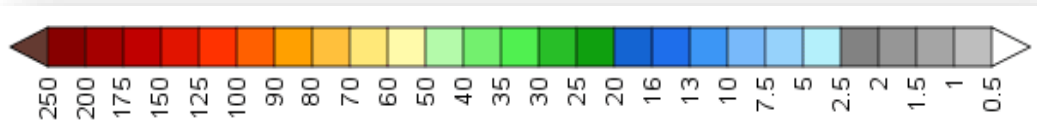
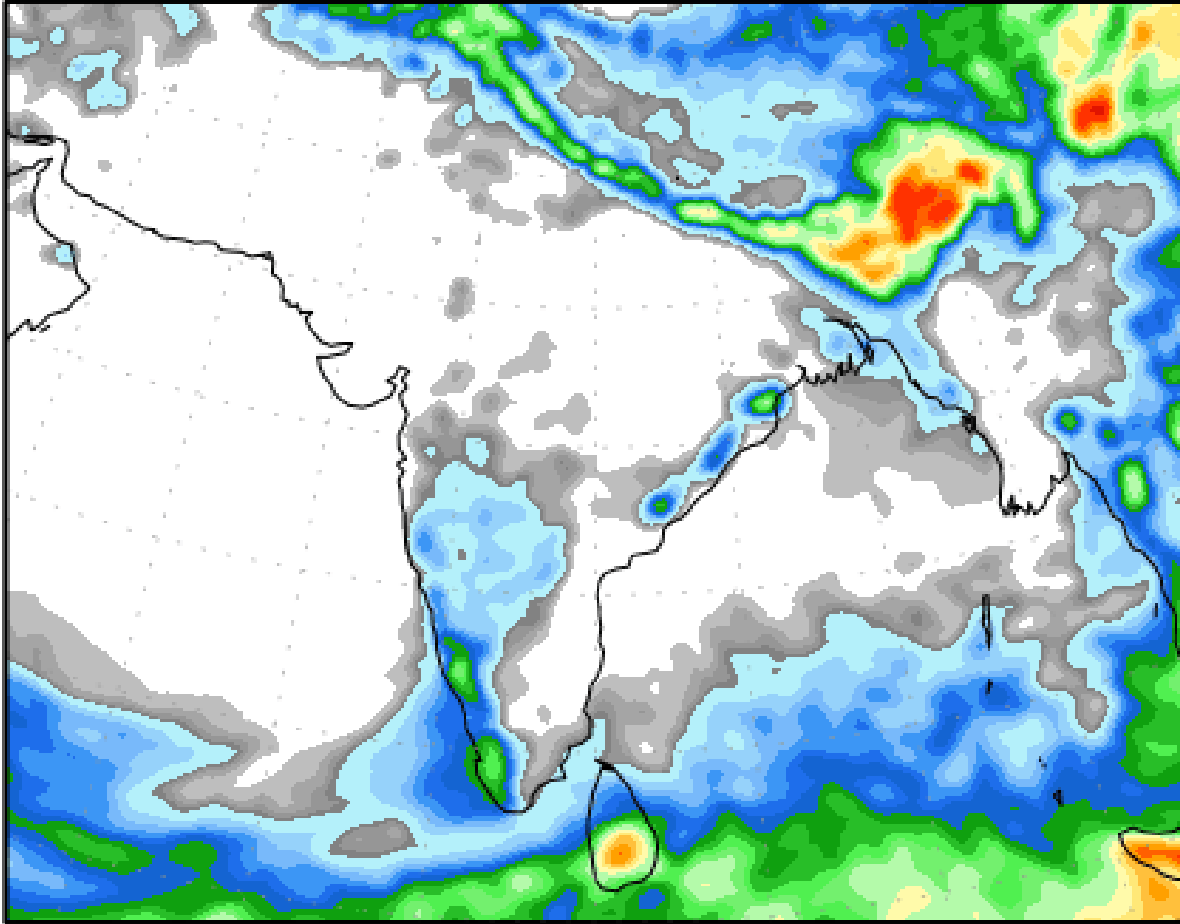
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IMD, DELHI

**Figure: 1. Latest available satellite picture as on 21 Apr 2022 at 1426 Hrs (IST). (Source: IMD).**





**Figure:2. Precipitation forecast for 21 Apr to 29 Apr 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.*