

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

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

### **Daily Crop Weather Information as on 12 January 2022**

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

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

- Wet spell over East & adjoining Central India and northeast India:
- The Western Disturbance as a cyclonic circulation lies over northeast Rajasthan in lower & middle tropospheric levels and the induced cyclonic circulation lies over northwest Uttar Pradesh in lower tropospheric levels.
- A trough runs from South Interior Karnataka to south Chhattisgarh in lower tropospheric levels.
- A cyclonic circulation lies over south Konkan in lower tropospheric levels.
- Confluence of winds from Arabian Sea and Bay of Bengal at lower tropospheric levels is very likely over East & adjoining central India during next 3 days.
- Under the influence of above systems: Isolated light/moderate rainfall/snowfall very likely over Himachal Pradesh & Uttarakhand on 12th January, 2022. Fairly widespread to widespread light/moderate rainfall very likely over Bihar, Jharkhand, Odisha, West Bengal & Sikkim, Telangana and Coastal Andhra Pradesh during 12th to 14th and isolated to scattered light/moderate rainfall over Vidarbha & Chhattisgarh during 12th to 14th January. Isolated Heavy rainfall very likely over Odisha on 13th January, 2022. Isolated thunderstorms with lightning/Hail very likely over Chhattisgarh and West Bengal & Sikkim on 12th and over Odisha on 13th January. Scattered to fairly widespread precipitation very likely over Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura on 12th & 13th and isolated precipitation over the region on 14th & 15th January.
- Under the influence of a cyclonic circulation over Southwest Bay of Bengal and another over south Tamil Nadu in lower tropospheric levels; isolated light rainfall/thundershower over Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe during next 4-5 days.
- Two fresh Western Disturbances very likely to affect northwest India, the 1st from 16th January and likely to cause isolated to scattered precipitation on 16th & 17th; the 2nd from 18th and likely to cause light/moderate scattered to fairly

widespread precipitation over Western Himalayan Region and light isolated to scattered rainfall over adjoining plains for subsequent 2-3 days.

- Cold wave conditions in isolated pockets very likely over Punjab, north Rajasthan and Madhya Pradesh during next 48 hours.
- Cold day to Severe Cold Day conditions in some pockets over West Madhya Pradesh and in isolated pockets over East Madhya Pradesh during next 2 days and Cold day conditions in isolated pockets very likely over Gujarat state during next 24 hours and over Punjab, Haryana & Chandigarh and north Rajasthan during next 2 days.
- Dense/Very Dense Fog in isolated pockets in night/morning hours very likely over plains of Himachal Pradesh & Uttarakhand during next 2 days; north Rajasthan during next 3 days; over Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh during next 4-5 days; over Assam & Meghalaya on 14th & 15th and over Nagaland, Manipur, Mizoram & Tripura on 15th January, 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 most places over Gangetic West Bengal, Odisha, Chhattisgarh and Jharkhand; at many places over Assam & Meghalaya, Bihar and Vidarbha; at a few places over Uttarakhand, Himachal Pradesh, Telangana, Nagaland, Manipur, Mizoram & Tripura and Arunachal Pradesh and at isolated places over Uttar Pradesh, Haryana, Chandigarh & Delhi, Punjab, East Madhya Pradesh, Sub-Himalayan West Bengal, North Interior Karnataka, Coastal Andhra Pradesh & Yanam and Tamil Nadu, Puducherry & Karaikal.
- Heavy Rainfall observed (from 0830 hours IST of yesterday to 0830 hours IST of today): Very Heavy Rainfall in isolated places over odisha and Heavy Rainfall in isolated places over Telangana and Chhattisgarh.
- Thunderstorm observed (from 0830 hours IST of yesterday to 0830 hours IST of today): in isolated places over Assam & Meghalaya, Gangetic West Bengal, Uttarakhand, East Madhya Pradesh, Telangana, Vidarbha, Chhattisgarh, East Uttar Pradesh, Bihar, Jharkhand and Odisha.
- Thunderstorm accompanied with Hail observed in isolated places over East Madhya Pradesh, Vidarbha, Chhattisgarh, Gangetic West Bengal and Telangana.
- Cold Day to severe cold day conditions observed in many parts of West Madhya Pradesh and in isolated parts of Punjab and Cold day conditions observed in isolated pockets over Gujarat state, Punjab and north Rajasthan.

- Fog observed (at 0830 hours IST of today): Dense to very dense fog in isolated pockets over Punjab, Uttarakhand, Bihar, Jharkhand, West Uttar Pradesh and north Rajasthan; Moderate fog in isolated pockets over and East Madhya Pradesh; Shallow fog in some pockets over Sub-Himalayan West Bengal and in isolated pockets over Haryana, Chandigarh & Delhi, Gangetic West Bengal, Marathwada, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- Minimum Temperature Departures (as on 12-01-2022): Minimum temperatures are markedly above normal ( $5.1^{\circ}\text{C}$  or more) at most places over Bihar; at a few places over East Madhya Pradesh, Sub-Himalayan West Bengal & Sikkim and Gangetic West Bengal and at isolated places over Jharkhand, Gangetic West Bengal, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura; appreciably above normal ( $3.1^{\circ}\text{C}$  to  $5.0^{\circ}\text{C}$ ) at many places over East Uttar Pradesh and Coastal Andhra Pradesh; at a few places over Chhattisgarh, Telangana, Rayalaseema and Jharkhand; at isolated places over Punjab, Odisha, Arunachal Pradesh, Tamil Nadu, Puducherry & Karaikal and Andaman & Nicobar islands; above normal ( $1.6^{\circ}\text{C}$  to  $3.0^{\circ}\text{C}$ ) at many places over West Uttar Pradesh and Haryana, Chandigarh & Delhi and Vidarbha and at isolated places over Marathwada. They are appreciably below normal ( $-3.1^{\circ}\text{C}$  to  $-5.0^{\circ}\text{C}$ ) at a few places over Gujarat State and West Madhya Pradesh and at isolated places over Konkan & Goa; below normal ( $-1.6^{\circ}\text{C}$  to  $-3.0^{\circ}\text{C}$ ) at many places over East Rajasthan and at isolated places over North Interior Karnataka, Coastal Karnataka and Himachal Pradesh and near normal over rest parts of the country. Today, the Lowest minimum temperature of  $3.4^{\circ}\text{C}$  reported at Churu (West Rajasthan) over the plains of the country.
- Maximum Temperature Departures (as on 11-01-2022): Maximum temperatures were appreciably above normal ( $3.1^{\circ}\text{C}$  to  $5.0^{\circ}\text{C}$ ) at many places over Assam & Meghalaya; at a few places over Arunachal Pradesh; above normal ( $1.6^{\circ}\text{C}$  to  $3.0^{\circ}\text{C}$ ) at many places over Nagaland, Manipur, Mizoram & Tripura, Rayalaseema and Kerala & Mahe; at a few places over Jammu & Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Sub-Himalayan West Bengal & Sikkim, South Interior Karnataka and Tamil Nadu, Puducherry & Karaikal; at isolated places over. They were markedly below normal ( $-5.0^{\circ}\text{C}$  or less) at many places over West Madhya Pradesh and Vidarbha; at a few places over Haryana, Chandigarh & Delhi, Rajasthan and East Madhya Pradesh; at isolated places over Odisha; appreciably below normal ( $-3.1^{\circ}\text{C}$  to  $-5.0^{\circ}\text{C}$ ) at most places over Jharkhand; at many places over Gujarat State and Marathawada; at a few places over Konkan & Goa and Telangana; below normal ( $-1.6^{\circ}\text{C}$  to  $-3.0^{\circ}\text{C}$ ) at most places over Punjab; at many

places over Himachal Pradesh, Coastal Karnataka and Andaman & Nicobar Islands and near normal at rest parts of the country. Yesterday, the highest maximum temperature of 36.0°C was reported at Punalur (Kerala).

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

- 12 January (Day 1): Thunderstorm accompanied with lightning & hail at isolated places very likely over Chhattisgarh, Sub-Himalayan West Bengal and Sikkim and with lightning at isolated places over Vidarbha, Jharkhand, Odisha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh & Yanam and Telangana. Cold wave conditions in isolated pockets very likely over Punjab, north Rajasthan and Madhya Pradesh. Cold day conditions at a few places with severe cold at isolated places very likely over West Madhya Pradesh and cold day in isolated places over Punjab, north Rajasthan and East Madhya Pradesh. Dense to Very Dense Fog in some parts very likely over Punjab, Haryana, Chandigarh & Delhi and dense fog in isolated pockets over plains of Himachal Pradesh and Uttarakhand, Uttar Pradesh and north Rajasthan. Squally weather (wind speed reaching 40-50 kmph gusting to 60 kmph) over Southeast Bay of Bengal. Fisherman are advised not to venture over this area.
- 13 January (Day 2): Heavy rainfall at isolated places very likely over Odisha. Thunderstorm accompanied with lightning & hail at isolated places very likely over Odisha and with lightning at isolated places over Vidarbha, Chhattisgarh, Jharkhand, Coastal Andhra Pradesh & Yanam and Telangana. Cold wave conditions in isolated pockets very likely over Punjab, north Rajasthan and Madhya Pradesh. Cold day conditions at a few places with severe cold at isolated places very likely over West Madhya Pradesh and cold day in isolated places over Punjab, north Rajasthan, East Madhya Pradesh and Assam & Meghalaya. Dense to Very Dense Fog in some parts very likely over Punjab, Haryana and in isolated pockets over Uttar Pradesh dense fog in isolated pockets over plains of Himachal Pradesh and Uttarakhand and north Rajasthan.
- 14 January (Day 3): Thunderstorm accompanied with lightning at isolated places very likely over Vidarbha, Odisha, Chhattisgarh, Coastal Andhra Pradesh & Yanam and Telangana. Dense to Very Dense Fog in isolated pockets very likely over Uttar Pradesh and dense fog in isolated pockets over Punjab, Haryana, north Rajasthan, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- 15 January (Day 4): Thunderstorm accompanied with lightning at isolated places likely over Coastal Andhra Pradesh & Yanam. Dense to Very Dense Fog in

isolated pockets likely over East Uttar Pradesh and dense fog in isolated pockets over Punjab, Haryana and West Uttar Pradesh.

- 16 January (Day 5): Dense to Very Dense Fog in isolated pockets likely over East Uttar Pradesh.
- The weather outlook for seven days i.e., 12 Jan to 20 Jan 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 9.4 to 18.0 °C and 3.0 to 8.0 °C which was mostly above normal by 0.9 to 3.8°C and 0.6 to 3.1 °C, respectively. 87.4 mm rainfall was received during the week against the normal of 17.4 mm. The relative humidity varied between 44-97% and sunshine hours between 0.0-7.5 hrs/day with variable sky conditions (Octa 2-8). The evaporation rate varied 0.6-2.3 mm per day.

#### Contingency measure:

- Rabi Crops: Wheat: In the early planted wheat crop where weeds are 2-3 leaves stage, spray isoproturon @ 70 g or Vesta @ 16 g per 30 litres of water in one kanal for the control of weeds.
- Storage of Grains: Grains should be properly dried to right moisture level before storing. Godowns should be properly cleaned by removing all the grains and other storage matter of previous crop.
- Mustard: Thinning and weeding is recommended in timely sown mustard crop. Keeping in view of relative humidity farmers are advised for monitoring of mustard crop against attack of white rust. If infection is high than spraying of Dithane - M -45 @ 2 gram/ litre of water of water is advised. Keeping in view of weather, farmers are advised for monitoring of mustard crop against aphid attack.
- Fodder Crops: Intercultural operations on already sown berseem, lucerne and oats for fodder of Rabi season also advised. The lantana weeds in the grasslands may be cut so that regenerated growth during September can be sprayed with 1% glyphosate for its control.
- Vegetable Crops: Add mulch material in space between two rows of vegetables crops for conservation of soil moisture and maintaining the soil temperature.
- Onion & Garlic: Sowing of garlic and onion is advised. Farmers are advised to monitor their fields regularly. Spray of Imidacloprid 17.8 % SC@ 1.0 ml/3 lit of water is recommended against white flies and other sucking pests in all crop and vegetables when sky is clear.
- Radish & Turnip: Thinning of turnip, carrot and radish is advised. Maintain a plant to plant distance of 7 -10 cm.
- Cabbage & Cauliflower: Advised to complete transplanting of seedlings of cabbage, cauliflower, knoll khol and broccoli are advised. Mix well rotten FYM prior to transplanting. The downy mildew is expected in cruciferous vegetables,

for control spray redomil M -Z @ 25 g per litres of water at 15 days interval.

- Potato: Farmers are advised to start earthing -up in potato if crop has attained a height of 15 -22 cm. If so required, the practice may be repeated after 15 days . Due to high relative humidity, infection of blight may occur in potato and tomato. Constant monitoring is advised. If symptoms appears than spray of Carbandizam @ 1.0 gm / litre of water or Dithane - M -45 @ 2.0 gm / litre of water is recommended.
- Poly House Agriculture: Advised tomato, cucumber and capsicum sowing and transplanting. For control of powdery mildew, aphids and spodoptera spray recommended chemicals. Keep yellow sticky trap in polyhouse and after transplanting drench plant with imidachlorpid. Leaf spot/blight is expected in shimla mirch and tomato for control spray tilt 1ml per liters of water.
- Tea: Training, skiffing and cleaning work can be completed in the tea orchards. Do lopping of the tree in the tea orchards to have more sunlight. The skiffed material may be used to prepare compost so that it could be applied in next season.
- Livestock: Ecto-parasite attack is expected in this weather for control spray Butox @ 2 ml per litre in cowshed Give mixture of hay & green fodder. The weather is suitable for the attack of pink eye disease in newly born calves, for control prepare the solution of 1% boric acid in boiled water and wash eyes at regular interval of three hours. Give mixture of hay & green fodder. Advised not to allow animals to eat lantana these days. Dry bedding may be provided to save the animals from cold. Young calves must be kept in the sheds during nights.
- Poultry: Make sure to deworm your older flocks every month against round-worms. 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. Ensure proper space for egg laying of birds and provide 14- to 16 hours light including day light. Normal feeding schedule should be continued and add mineral in the diet if stress is seen.
- Mushrooms: Dingri can be sown in closed room, maintain temperature of 25-28 degree Celsius and relative humidity of 80-85 % for good crop. Advised ti fill compost bags with span for button mushrooms.
- Horticulture: Keep the basins of the plants free from weeds. The new growth appearing below bud union may be cut. If a termite outbreak appears on the trees, spray Chlorpyriphos 20 EC @ 3ml/l. Monitor foliar pest on plants of Citrus

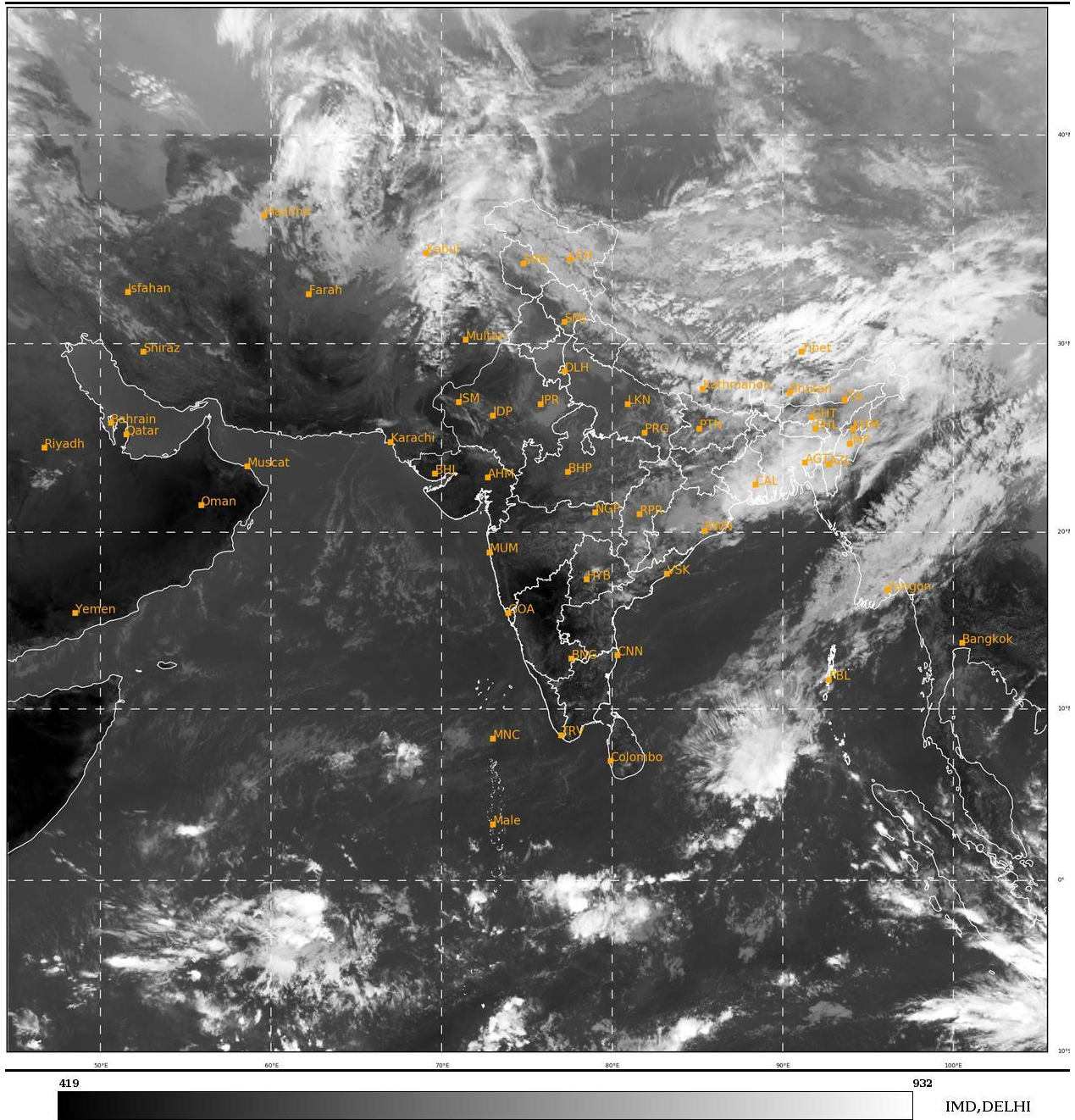


species. Spray Chlorantraniliprole 18.5SC @ 0.4 ml/l or lambda cyhalothrin 4.90CS @0.8 ml/l for pomegranate butterfly. Advised recommended spray of chemicals for control of citrus canker. In peach gum is coming out from tree trunk, for control bordeaux paint may be applied in the affected area. Advised planting of strawberry. Wrapping of plastic sheets around mango trunk should be done for preventing climbing of young mealy bugs. Apply grease to seal any cracks in the polythene sheets. If the stem borer problem is there in spray insecticide or control them with applying kerosene oil. Keep the basins of the plants free from weeds. Prepare the pits for planting the winter plants like peacunnut, walnut, almond plum and peach. In peach gum is coming out from tree trunk, for control bordeaux paint may be applied in the affected area.

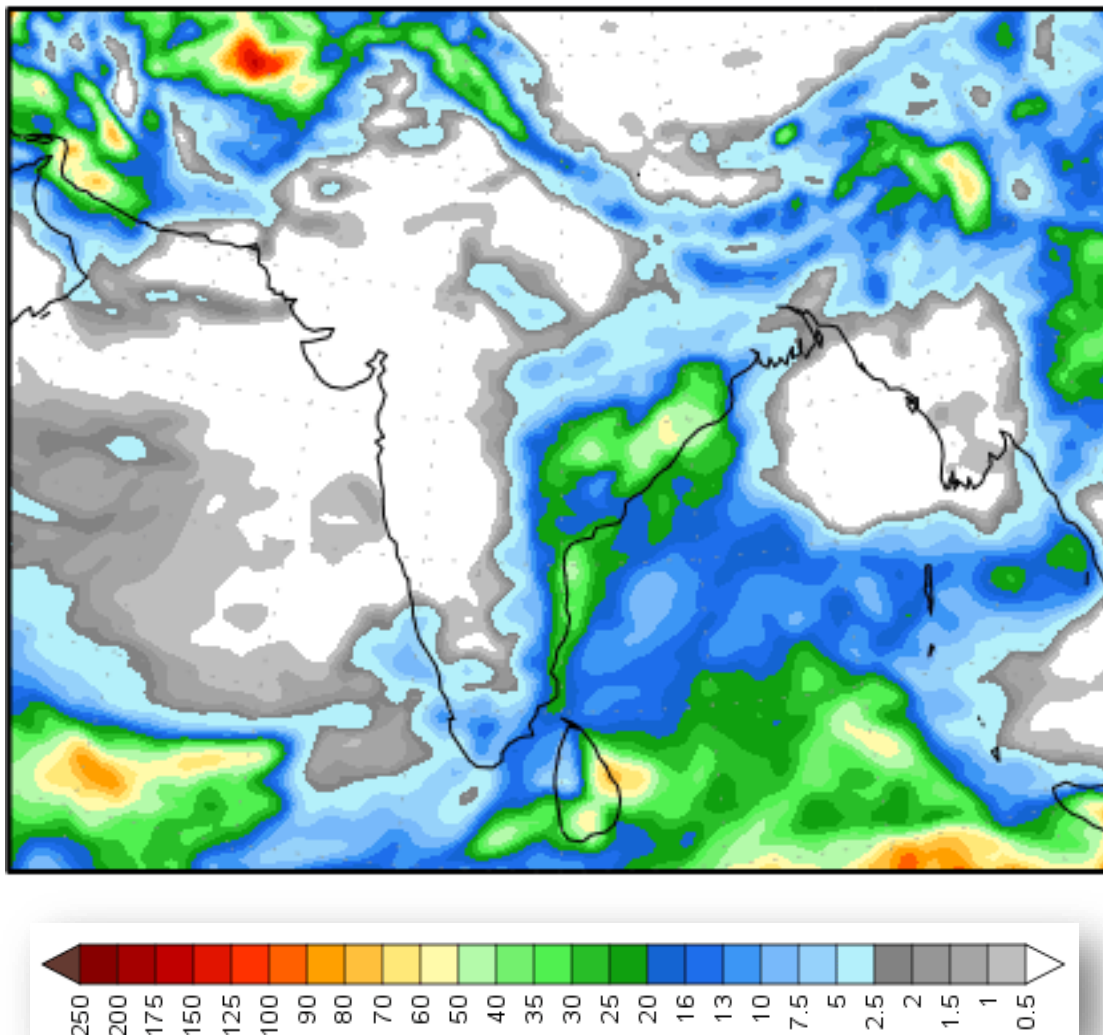
- Fruit Trees: Sowing of mango, litchi, guava, papaya, pecanut and kagzi lime is recommended under these weather conditions. Air layering of litchi, guava, kagzi lime and lemon is recommended. Side veneer grafting in mango and inverted T-budding in citrus is recommended. Transplanting of seedlings of rough lemon (Khatti) in the nursery beds, if not done during July. Weeding in nursery is recommended.



12-01-2022/(0800 to 0827) GMT  
12-01-2022/(1330 to 1357) IST



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**Figure:2. Precipitation forecast for 12 Jan to 20 Jan 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.*