

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

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

### **Daily Crop Weather Information as on 14 May 2020**

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

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

- The low pressure area over southeast Bay of Bengal and adjoining south Andaman Sea now lies as Well Marked Low Pressure Area over southeast Bay of Bengal & neighbourhood. Associated cyclonic circulation extends upto mid-tropospheric levels. It is very likely to concentrate into a Depression over central parts of south Bay of Bengal on tomorrow, the 15th May and further intensify into a Cyclonic Storm over the same region by 16th May evening. It is very likely to move northwestwards initially till 17th and then re-curve northnortheastwards towards north Bay of Bengal during 18th-19th May.
- Under its influence, Squally weather conditions with wind speed of the order of 40-50 kmph gusting to 60 kmph likely to prevail over Andaman Sea during 15th-17th, along & off north Andhra Pradesh-south Odisha coasts on 18th; wind speed of the order of 45-55 kmph gusting to 65 kmph likely over southeast Bay of Bengal & adjoining southwest & central Bay of Bengal on 15th; of the order of 55-65 kmph gusting to 75 kmph likely over central parts of south Bay of Bengal & adjoining central Bay of Bengal on 16th; of the order of 70-80 kmph gusting to 90 kmph likely over eastcentral & adjoining westcentral and south Bay of Bengal on 17th and wind speed of the order of 80-90 kmph gusting to 100 kmph over westcentral & adjoining eastcentral Bay of Bengal on 18th. Fishermen are advised not to venture into these areas during these periods.
- Fishermen are advised not to venture into Odisha-West Bengal coasts from 18th May onwards and those out at sea are advised to return to the coast.
- Under the influence of Western Disturbance, scattered to fairly widespread rain/thundershowers likely over Western Himalayan region and isolated to scattered activity likely over plains of Northwest India during next 2 days. Isolated thunderstorm accompanied with hail, gusty winds & lightning is also likely over these regions during the same period.
- Due to trough/wind discontinuity, scattered to fairly widespread rain/thundershowers with lightning and gusty winds (30-40 kmph) very likely

over south peninsular India during next 3-4 days along with isolated heavy rainfall activity over parts of the region during the same period.

- Northeastern states are likely to continue to experience scattered to fairly widespread rain/thundershowers during next 4 days. Isolated to scattered rain/thundershowers also likely over adjoining Eastern states during this period. Isolated heavy rain very likely over Assam & Meghalaya during 14th-16th; over Arunachal Pradesh on 14th & 16th and over Nagaland, Manipur, Mizoram & Tripura on 14th May, 2020.
- The images showing the latest satellite picture in the figure. 1.

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

- Rain/Thundershowers observed (from 0830 hours IST of yesterday to 0830 hours IST of today): at most places over Andaman & Nicobar Islands, Arunachal Pradesh and Assam & Meghalaya; at many places over Nagaland, Manipur, Mizoram & Tripura, Sub-Himalayan West Bengal & Sikkim, Coastal Karnataka and Lakshadweep; at a few places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad, Interior Karnataka and Kerala & Mahe; at isolated places over Gangetic West Bengal, Odisha, Jharkhand, Uttar Pradesh, Uttarakhand, Haryana, Chandigarh & Delhi, Punjab, Himachal Pradesh, Rajasthan, Madhya Pradesh, Maharashtra, Goa, Chhattisgarh, Telangana and Tamilnadu, Puducherry & Karaikal.
- Heavy rainfall occurred at isolated places over Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya and Andaman & Nicobar Islands.
- Thunderstorm observed (From 2030 hours IST of yesterday to 0830 hours IST of today) at isolated places over Assam & Meghalaya, Kerala & Mahe, Vidarbha, North Interior Karnataka and Punjab. ♦ Maximum Temperature Departures as on 13-05-2020: Maximum temperatures were appreciably above normal (3.1°C to 5.0°C) at a few places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad and South Interior Karnataka and at isolated places over Gujarat; above normal (1.6°C to 3.0°C) at a few places over Bihar, West Bengal & Sikkim, Coastal Karnataka and Lakshadweep; at isolated places over Assam & Meghalaya, Madhya Maharashtra, Vidarbha, Telangana, Konkan & Goa and Tamil Nadu, Puducherry & Karaikal. They were markedly below normal (-5.0°C or less) at a few places over Punjab, Haryana, Chandigarh & Delhi; at isolated places over Rajasthan and West Uttar Pradesh; appreciably below normal (-3.1°C to -5.0°C) at isolated places over Jharkhand, Chhattisgarh, Odisha and West

Madhya Pradesh; below normal (-1.6°C to -3.0°C) at most places over Himachal Pradesh and Uttarakhand; at many places over Nagaland, Manipur, Mizoram & Tripura; at a few places over Arunachal Pradesh and Andaman & Nicobar Islands and at isolated places over East Uttar Pradesh and near normal over rest parts of the country. Yesterday, the highest maximum temperature of 43.5°C was reported at Khargone (West Madhya Pradesh).

- Minimum Temperature Departures as on 14-05-2020: Minimum temperatures are appreciably above normal (3.1°C to 5.0°C) at isolated places over Sub-Himalayan West Bengal & Sikkim; above normal (1.6°C to 3.0°C) at many places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad, Gujarat region and Bihar; at a few places over Madhya Maharashtra and South Interior Karnataka; at isolated places over Saurashtra & Kutch, Gangetic West Bengal, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal. They are appreciably below normal (-3.1°C to -5.0°C) at a few places over Vidarbha; below normal (-1.6°C to -3.0°C) at a few places over Haryana, Chandigarh & Delhi, Assam & Meghalaya and Madhya Pradesh; at isolated places over Himachal Pradesh, West Rajasthan and Uttar Pradesh and near normal over rest parts of the country. The lowest minimum temperature of 20.6°C reported at Koraput (Odisha) over the plains of the country.

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

- 14 May (Day 1): Thunderstorm accompanied with lightning & squall (speed reaching 50-60 kmph) at isolated places over Andaman & Nicobar Islands; with lightning, hail & gusty winds (speed reaching 40-50 kmph) at isolated places over Punjab; with lightning, hail & gusty winds (speed reaching 30-40 kmph) at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad, Himachal Pradesh, Uttarakhand, Marathwada and Madhya Maharashtra; with lightning & gusty winds (speed reaching 40-50 kmph) at isolated places over Haryana, Chandigarh & Delhi and Assam & Meghalaya; with lightning & gusty winds (speed reaching (30-40 kmph) at isolated places over Uttar Pradesh, Madhya Pradesh, Vidarbha, Chhattisgarh, West Bengal & Sikkim, Konkan & Goa, Nagaland, Manipur, Mizoram & Tripura, Coastal & South Interior Karnataka, Lakshadweep, Kerala & Mahe and Tamilnadu, Puducherry & Karaikal and with lightning at isolated places over Bihar, Jharkhand, Odisha, Arunachal Pradesh, Telangana and North Interior Karnataka. Heavy rainfall very likely at isolated places over Sub-Himalayan West Bengal & Sikkim, Andaman & Nicobar Islands, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram &

Tripura, Coastal & South Interior Karnataka and Kerala & Mahe. Duststorm/thunderstorm accompanied with gusty winds (speed reaching 40-50 kmph) very likely at isolated places over Rajasthan. Squally weather conditions, wind speed reaching occasionally 40-50 kmph very likely to prevail over southeast Bay of Bengal. Fishermen are advised not to venture into this area.

- 15 May (Day 2): Thunderstorm accompanied with lightning & squall (speed reaching 50-60 kmph) at isolated places over Andaman & Nicobar Islands; with lightning, hail & gusty winds (speed reaching 30-40 kmph) at isolated places over Uttarakhand; with lightning & gusty winds (speed reaching 40-50 kmph) at isolated places over Gangetic West Bengal; with lightning & gusty winds (speed reaching (30-40 kmph) at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad, Himachal Pradesh, West Uttar Pradesh, Rajasthan, Vidarbha, Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Marathawada, Madhya Maharashtra, Konkan & Goa, Nagaland, Manipur, Mizoram & Tripura, Telangana, Coastal & South Interior Karnataka, Lakshadweep and Kerala & Mahe and with lightning at isolated places over Madhya Pradesh, Bihar, Jharkhand, Odisha, Arunachal Pradesh, Coastal Andhra Pradesh & Yanam, North Interior Karnataka and Tamilnadu, Puducherry & Karaikal. Heavy rainfall very likely at isolated places over Andaman & Nicobar Islands, Assam & Meghalaya, Coastal Karnataka and Lakshadweep. Squally weather conditions, wind speed reaching 45-55 kmph gusting likely to prevail over southeast Bay of Bengal and adjoining Central & southwest Bay of Bengal and with wind speed reaching 40-50 kmph over Andaman Sea. Fishermen are advised not to venture into these areas.
- 16 May (Day 3): Thunderstorm accompanied with lightning & squall (speed reaching 50-60 kmph) at isolated places over Andaman & Nicobar Islands; with lightning & gusty winds (speed reaching 40-50 kmph) at isolated places over Gangetic West Bengal; with lightning & gusty winds (speed reaching (30-40 kmph) at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad, Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, Odisha, Assam & Meghalaya, Marathawada, Madhya Maharashtra, Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Coastal & South Interior Karnataka, Lakshadweep and Kerala & Mahe and with lightning at isolated places over Vidarbha, Bihar, Jharkhand, Arunachal Pradesh and Konkan & Goa. Heavy rainfall very likely at isolated places over Sub-Himalayan West Bengal & Sikkim, Andaman & Nicobar Islands, Arunachal Pradesh, Assam & Meghalaya, Coastal Andhra Pradesh & Yanam, Telangana,

Coastal & South Interior Karnataka, Lakshadweep and Kerala & Mahe. Squally weather conditions with wind speed reaching 55-65 kmph gusting to 75 kmph likely to prevail over central parts of south Bay of Bengal & adjoining central Bay of Bengal and 40-50 kmph over Andaman Sea and Lakshadweep area. Fishermen are advised not to venture into these areas.

- 17 May (Day 4): Thunderstorm accompanied with lightning & gusty winds (speed reaching 40-50 kmph) likely at isolated places over Gangetic West Bengal; with lightning & gusty winds (speed reaching 30-40 kmph) at isolated places over Chhattisgarh, Odisha, Andaman & Nicobar Islands, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh & Yanam, Coastal Karnataka, Lakshadweep and Kerala & Mahe and with lightning at isolated places over Bihar, Jharkhand, Arunachal Pradesh, Rayalaseema and Telangana. Heat wave conditions likely in isolated pockets over Rajasthan. Squally weather conditions with wind speed reaching 70-80 kmph gusting to 90 kmph likely to prevail over westcentral Bay of Bengal and adjoining westcentral & south Bay of Bengal and 40-50 kmph over Andaman Sea. Fishermen are advised not to venture into these areas.
- 18 May (Day 5): Thunderstorm accompanied with lightning & gusty winds (speed reaching 40-50 kmph) likely at isolated places over Gangetic West Bengal; with lightning & gusty winds (speed reaching 30-40 kmph) at isolated places over Chhattisgarh, Odisha, Andaman & Nicobar Islands, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Tamilnadu, Puducherry & Karaikal, Lakshadweep and Kerala & Mahe and with lightning at isolated places over Bihar, Jharkhand, Arunachal Pradesh, Coastal Andhra Pradesh & Yanam and Coastal Karnataka. Heat wave conditions likely in isolated pockets over Rajasthan. Heavy rainfall likely at isolated places over Odisha and Kerala & Mahe. Squally weather conditions, wind speed reaching 80-90 kmph gusting to 100 kmph likely to prevail over westcentral Bay of Bengal and adjoining areas of eastcentral Bay of Bengal and 40-50 kmph along & off north Andhra Pradesh-Odisha coasts. Fishermen are advised not to venture into these areas and Odisha-West Bengal coasts and those out at sea shall come back.
- The weather outlook for seven days i.e., 14 to 22 May 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)

### **Jharkhand**

#### **Weather condition:**

Good rainfall received during this week i.e 47.8 mm against the normal rainfall i.e 8.2 mm. Weekly Maximum and minimum temperature ranged from 28.4 to 33.4 and 19.4 to 23.4 . Actual weekly average maximum and minimum temperature was 31.3 and 21.1 deg C against the normal value of 36.7 and 23.6 deg C

#### **Contingency measure:**

- **General Advisory:** Due to previous days rain, sufficient soil moisture is present in the field. Hence, farmers are advised to plough their field immediately and those farmers who wish to cultivate ginger, turmeric or oal (elephant foot yam) may start sowing after land preparation. Before sowing, seed must be treated with fungicide Bavistin. For seed treatment 2 gm of Bavistin may be mixed in 1 liter of water and seeds may be soaked at least for one hour in this solution. Apply full dose of compost and Muriate of Potash and half dose of Urea and D.A.P. at the time of final field preparation. Remaining part of Urea and D.A.P. should be applied after 60 and 90 days of sowing in two split doses. After sowing, mulch the field with straw / leaves etc. which will not only reduce weeds but also will conserve soil moisture. Seeds of ginger and turmeric should be with one or two eyes and of oal seed must have apex bud.
- **RICE:** Timely transplanted crops are at reproductive stage and this stage is sensitive of moisture stress. And hence maintain the bunds of the field to remain stagnate water and if there is a problem of weeds, control them immediately. At this stage there is possibility of the attack of the insects Gandhi bugs, which sucks the sap of the flowers. To control the attack of the insects, dusting of the insecticides like Chlorpyriphos dust or quinolphos dust or Methyl Parathion dust @ 10 kg per acre is recommended during evening. In absence of the insecticide, dusting of wood ash mixed with kerosin oil is also effective.
- **GINGER:** Select one of the improved variety of ginger seeds like Bardhwan, Suruchi, Suprabha, Nadiya etc. and sow the seed at a spacing of 40 cm (row to row) and 10 cm (plant to plant). 8 quintal of seeds, 80 quintal compost, 53 kg DAP, 70 kg Urea and 40 kg Muriate of potash is needed for cultivation in one acre.
- **DIOSCOREA (ELEPHANT FOOT YAM) :** Select one of the improved variety of yam (oal) seeds like Gajendra, Vidhan, Kusum, Sri Padma etc. and sow the seed at a spacing of 60 cm (row to row) and 60 cm (plant to plant). 56 quintal of seeds,

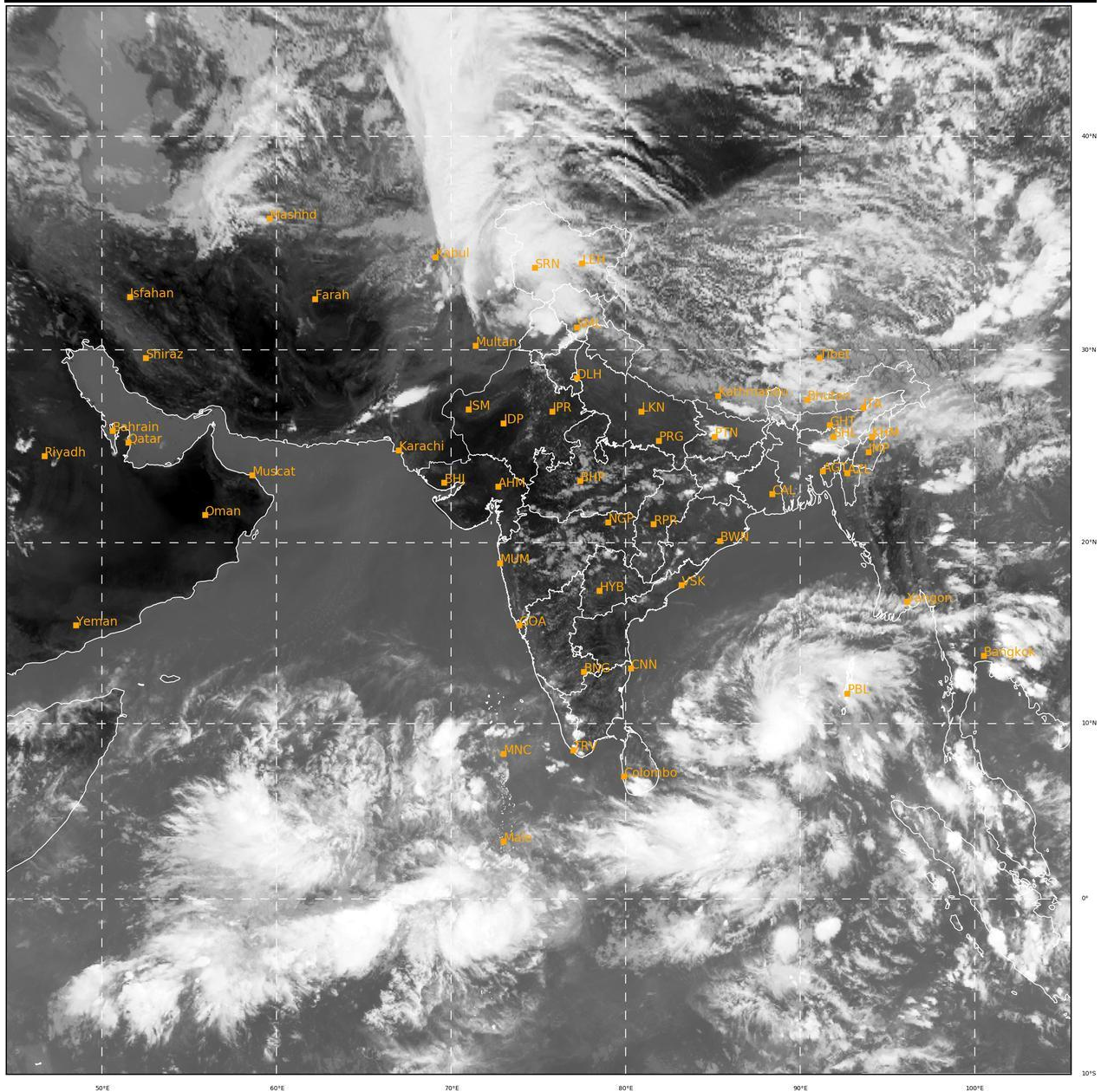


80 quintal compost, 53 kg DAP, 70 kg Urea and 54 kg Muriate of potash is needed for cultivation in one acre.

- **GREEN GRAM:** Inter culture operation must be performed after rain to maintain soil moisture for a longer period. Timely sown crops are at flowering stage. Attack of Thrips at this stage is not uncommon which causes dropping of flowers from the plant. If such symptoms appears, spray the insecticide like Trizophos or Profenphos @ 1 ml. per liter of water in evening time during clear weather condition.
- **DAINCHA:** At optimum soil moisture, farmers may sow the green manure crops like Sunhamp and Dhaincha to increase the soil fertility of Rice field. The seed rate for both is 20-25 kg per acre.
- **TURMERIC:** Select improved variety of turmeric seeds like Sonia and sow the seed at a spacing of 40 cm (row to row) and 15 cm (plant to plant). 8 quintal of seeds, 80 quintal compost, 53 kg DAP, 70 kg Urea and 40 kg Muriate of potash is needed for cultivation in one acre.
- **MANGO:** Select the suitable place for plantation of different fruit seedlings in rainy season and prepare/dug the pit and maintain the distance between pit as per requirement of fruit tree.
- **BOTTLE GOURD:** In some patches the cucurbitaceous vegetables are attacked by different insects like pumpkin beetle, fruit fly or red mites. If the crops are at fruiting stage, spray only neem based insecticide (Neemerin/ Neemetin/ Neemesidin/ Achook) @ 5 ml per liter of water during clear weather. If the crops are at vegetative stage, spray the insecticide Chlorpyriphos@ 2 ml. per liter of water or Imidachlorprid @ 1 ml per liter of water.

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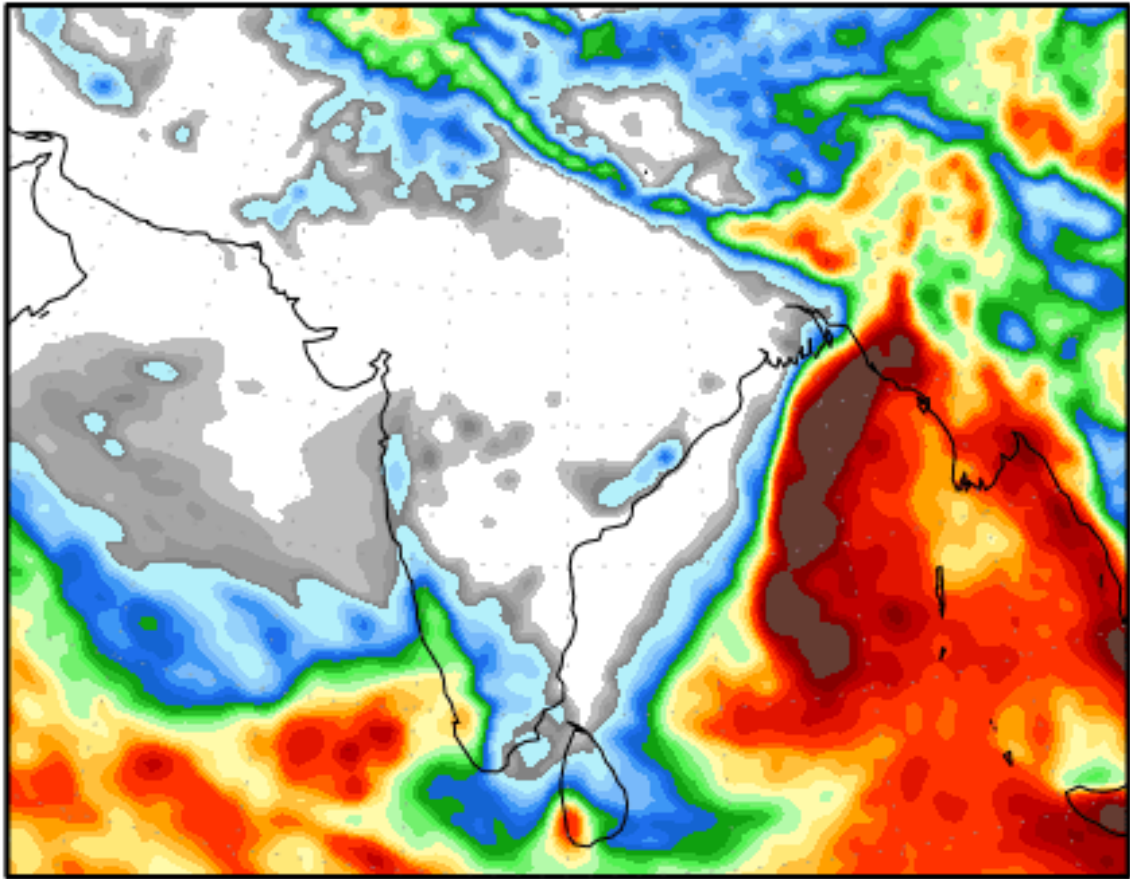
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IMD, DELHI

Figure: 1. Latest available satellite picture as on 14 May 2020 at 1427 Hrs (IST). (Source: IMD).





**Figure:2. Precipitation forecast for 14 to 22 May 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.*