

All India Coordinated Research Project on Agrometeorology

CRIDA, Santoshnagar, Hyderabad – 500 059

Daily Crop Weather Information as on 08 Jul 2021

Attention: Rajiv Maheshwari, OSD, ICAR

Significant Weather Features (IMD)

- The Northern Limit of southwest monsoon (NLM) continues to pass through Lat. 26°N / Long. 70°E, Barmer, Bhilwara, Dholpur, Aligarh, Meerut, Ambala and Amritsar.
- The moist easterly winds in lower level from Bay of Bengal has started to establish over eastern India. It is likely to spread into northwest India covering Punjab and north Haryana by 10th July. Accordingly, southwest monsoon likely to advance over remaining parts of West Uttar Pradesh, some more parts of Punjab, Haryana and Rajasthan and Delhi around 10th July.
- A low pressure area is likely to form over westcentral & adjoining Northwest Bay of Bengal off north Andhra Pradesh-south Odisha coasts around 11th July.
- Under the influence of these conditions:
 - (i) Scattered to widespread rainfall very likely over Northwest India from 9th July onwards and isolated heavy rainfall also very likely over Jammu, Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad & Punjab on 11th & 12th; Uttarakhand & West Uttar Pradesh during 08th-12th; Himachal Pradesh, East Rajasthan & Haryana, Chandigarh & Delhi during 10th-12th and East Uttar Pradesh during 08th-10th July, 2021. Isolated very heavy rainfall also very likely over Uttarakhand on 11th & 12th, July, 2021.
 - (ii) Scattered to widespread rainfall with isolated heavy falls very likely over Central India (Madhya Pradesh, Vidarbha, Chhattisgarh and Odisha) during next 5 days and isolated very heavy rainfall also very likely over Vidarbha and Chhattisgarh on 08th & 09th; West Madhya Pradesh on 10th & 11th and East Madhya Pradesh on 09th July, 2021.
- Due to strengthening of Southwest Monsoon over Arabian Sea and likely formation of a Low Pressure Area over Westcentral & adjoining Northwest Bay of Bengal around 11th July; enhanced rainfall activity very likely along the west & east coasts likely to continue during next 5 days. Fairly widespread to Widespread rainfall with isolated heavy to very heavy falls very likely over

Maharashtra & Goa, Coastal Andhra Pradesh and Telangana, Karnataka and Kerala & Mahe during 08th -12th July.

- Due to revival of Southwest Monsoon from 8th July; rainfall intensity and distribution very likely to decrease over Northeast India (Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura) from 9th July onwards.
- Moderate to Severe Thunderstorms accompanied with frequent cloud to ground lightning very likely over Uttar Pradesh, Bihar, Madhya Pradesh and Chhattisgarh during next 24 hours. This may cause injuries leading to casualties to people and animals staying outdoors.
- 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, Assam & Meghalaya, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Odisha, West Bengal & Sikkim, Jharkhand, Marathwada, Vidarbha, Telangana, Chhattisgarh and Lakshadweep ; at many places over Bihar, Konkan & Goa, Coastal Andhra Pradesh & Yanam, Rayalseema, Coastal and North Interior Karnataka; at a few places over Jammu, Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, East Madhya Pradesh, Tamilnadu, Puducherry & Karaikal, South Interior Karnataka and Kerala & Mahe and at isolated places over Uttarakhand, Himachal Pradesh, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh Rajasthan, West Madhya Pradesh, Madhya Maharashtra and Gujarat Region.
- Heavy to very heavy rainfall recorded at isolated places over West Bengal, Bihar, Vidarbha, Chhattisgarh, Telangana, Tamilnadu, Puducherry & Karaikal and Coastal Andhra Pradesh and heavy rainfall at isolated places over Assam & Meghalaya, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Odisha, East Uttar Pradesh, Konkan & Goa, Marathwada, Rayalseema, Coastal and North Interior Karnataka.
- Heat wave observed in many pockets over Haryana, Chandigarh & Delhi and in isolated pockets over Punjab, West Uttar Pradesh and West Madhya Pradesh.
- Thunderstorm observed (from 0830 hours IST of yesterday to 0830 hrs IST of today): at a few places over Jammu, Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Gengetic West Bengal and Odisha; at isolated places over Punjab, Himachal Pradesh, East Uttar Pradesh, Bihar, Jharkhand, Chhattisgarh, Madhya Pradesh, Telangana, Rayalseema, Marathawada, Konkan & Goa, Karnataka,

Kerala & Mahe, Tamilnadu, Puducherry & Karaikal, Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya and Coastal Andhra Pradesh & Yanam.

- Maximum Temperature Departures as on 07-07-2021: Maximum temperatures were markedly above normal (5.1°C to more) at most places over Punjab; at many places over Vidarbha; at a few places over Himachal Pradesh, Uttarakhand, West Uttar Pradesh and West Madhya Pradesh and at isolated places over East Uttar Pradesh, Haryana, Chandigarh & Delhi, East Uttar Pradesh and East Madhya Pradesh; appreciably above normal (3.1°C to 5.0°C) at most places over Marathwada; at many places over Gujarat Region and Madhya Maharashtra; at a few places over Telangana and North Interior Karnataka and at isolated places over West Rajasthan; above normal (1.6°C to 3.1°C) at most places over, Genetic West Bengal and Jharkhand; at many places over Jammu, Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Kerala & Mahe, Assam & Meghalaya, Odisha and South Interior Karnataka state; at a few places over Bihar Coastal Andhra Pradesh & Yanam and Andaman & Nicobar Islands; at isolated places over Rayalseema, Lakshadweep and Tamilnadu, Puducherry & Karaikal and near normal over rest parts of the country. Yesterday, the highest maximum temperature of 45.5°C was reported at Ganganagar (West Rajasthan).
- Minimum Temperature Departures as on 08-07-2021: Minimum temperatures are appreciably above normal (3.1°C to 5.0°C) at many places over Punjab, ; at isolated places over East Rajasthan and West Madhya Pradesh; above normal (1.6°C to 3.0°C) at most places over Uttarakhand, Gujarat region and Sub-Himalayan West Bengal & Sikkim and Kerala & Mahe; at a few places over Uttar Pradesh, Bihar, Marathawada; at isolated places over East Madhya Pradesh, Madhya Maharashtra and North Interior Karnataka. They are below normal (-1.6°C to -3.0°C) at isolated places over Tamil Nadu, Puducherry & Karaikal, Telangana, Rayalaseema and Coastal Andhra Pradesh & Yanam and near normal over rest parts of the country.

Weather Warning during the next 5 days (IMD)

- 08 July (Day 1): Heavy to Very Heavy Rainfall very likely at isolated places over Vidharbha, Chattisgarh, Coastal Andhra Pradesh & Yanam and Telangana and Heavy Rainfall at isolated places over Uttarakhand, East Uttar Pradesh, Madhya Pradesh, Bihar, Jharkhand, West Bengal & Sikkim, Odisha, Andaman & Nicobar Islands, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Marathwada, Rayalseema, Karnataka Tamilnadu, Puducherry & Karaikal and Kerala & Mahe. Thunderstorm with gusty wind (speed reaching 30-40 kmph) very likely at isolated places over Punjab, Haryana,

Chandigarh & Delhi, East Rajasthan and Andaman & Nicobar Islands; with lightning at isolated places over Himachal Pradesh, Uttarakhand, Uttar Pradesh, Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Jharkhand, West Bengal & Sikkim, Odisha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Madhya Maharashtra, Marathwada, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Karnataka and Tamilnadu, Puducherry & Karaikal. Heat Wave conditions very likely in isolated pockets over Punjab, Haryana, Chandigarh & Delhi, West Uttar Pradesh and Rajasthan. Strong Winds (speed 40-50 kmph gusting to 60 kmph) very likely over Southwest & Westcentral Arabian sea; Southeast Arabian Sea along & off Kerala & Karnataka coasts & Lakshadweep area. Fishermen are advised not to venture into these areas.

- 9 July (Day 2): Heavy to Very Heavy Rainfall very likely at isolated places over East Madhya Pradesh, Vidharbha, Chattisgarh, Coastal & South Interior Karnataka and Kerala & Mahe and Heavy Rainfall at isolated places over Uttarakhand, Uttar Pradesh, West Madhya Pradesh, Jharkhand, Odisha, Andaman & Nicobar Islands, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Madhya Maharashtra, Marathwada, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, North Interior Karnataka and Tamilnadu, Puducherry & Karaikal. Thunderstorm with gusty wind (speed reaching 40- 50 kmph) very likely at isolated places over Andaman & Nicobar Islands; with gusty wind (speed reaching 30-40 kmph) at isolated places over Punjab, Haryana, Chandigarh & Delhi and East Rajasthan and with lightning very likely at isolated places over Jammu, Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Uttar Pradesh, Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Jharkhand, West Bengal & Sikkim, Odisha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra, Marathwada, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Karnataka and Tamilnadu, Puducherry & Karaikal. Thunderstorm/Duststorm with lightning & gusty winds (speed reaching 40-50 kmph) very likely at isolated places over West Rajasthan. Heat Wave conditions very likely in isolated pockets over Punjab, Haryana, Chandigarh & Delhi and West Rajasthan. Strong Winds (speed 40-50 kmph gusting to 60 kmph) very likely over Southwest & Westcentral Arabian sea; Lakshadweep area and along & off Kerala & Karnataka coasts; South Bay of Bengal along & off Tamil Nadu & south Andhra Pradesh coasts, Comorin area, Gulf of Mannar and Andaman Sea. Fishermen are advised not to venture into these areas.

- 10 July (Day 3): Heavy to Very Heavy Rainfall very likely at isolated places over West Madhya Pradesh, Andaman & Nicobar Islands, Konkan & Goa, Coastal & South Interior Karnataka, Kerala & Mahe and Tamilnadu, Puducherry & Karaikal and Heavy Rainfall at isolated places over Himachal Pradesh, Uttarakhand, Haryana, Chandigarh & Delhi, Uttar Pradesh, East Rajasthan, East Madhya Pradesh, Vidarbha, Chhattisgarh, Odisha, Madhya Maharashtra, Marathwada, Telangana, Coastal Andhra Pradesh & Yanam and North Interior Karnataka. Thundersquall (speed reaching 50-60 kmph) very likely at isolated places over Andaman & Nicobar Islands; with gusty wind (speed reaching 30-40 kmph) at isolated places over East Rajasthan and with lightning at isolated places over Jammu, Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, Madhya Pradesh, Bihar, Jharkhand, West Bengal & Sikkim, Odisha, Gujarat Region, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema and Tamilnadu, Puducherry & Karaikal. Thunderstorm/Duststorm with lightning & gusty winds (speed reaching 40-50 kmph) very likely at isolated places over West Rajasthan. Strong Winds (speed 40-50 kmph gusting to 60 kmph) very likely over Southwest & Westcentral Arabian sea; Northeast Arabian Sea and along & off Gujarat coast; Lakshadweep area and along & off Kerala & Karnataka coasts; South Bay of Bengal; Westcentral bay of Bengal along & off Tamil Nadu & south Andhra Pradesh coasts, Comorin area, Gulf of Mannar and Andaman Sea. Fishermen are advised not to venture into these areas.
- 11 July (Day 4): Heavy to Very Heavy Rainfall likely at isolated places over Uttarakhand, West Madhya Pradesh, Andaman & Nicobar Islands, Konkan & Goa, ghat areas of Madhya Maharashtra, Telangana, Coastal Andhra Pradesh & Yanam, Coastal & South Interior Karnataka, Kerala & Mahe and Tamilnadu, Puducherry & Karaikal and Heavy Rainfall at isolated places over Jammu, Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Punjab, Haryana, Chandigarh & Delhi, West Uttar Pradesh, East Rajasthan, East Madhya Pradesh, Vidarbha, Chhattisgarh, Odisha, Gujarat Region, Marathwada, Rayalseema and North Interior Karnataka. Thundersquall (speed reaching 50-60 kmph) likely at isolated places over Andaman & Nicobar Islands; with lightning & hail at isolated places over Jammu, Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad; with gusty wind (speed reaching 30-40 kmph) at isolated places over East Rajasthan and with lightning at isolated places over Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, West Rajasthan, Gujarat Region, Coastal Andhra Pradesh & Yanam, Telangana,

Rayalaseema and Tamilnadu, Puducherry & Karaikal. Strong Winds (speed 40-50 kmph gusting to 60 kmph) likely over Southwest & Westcentral Arabian sea; Northeast Arabian Sea and along & off Gujarat coast; Lakshadweep area and along & off Kerala & Karnataka coasts; South Bay of Bengal; Westcentral bay of Bengal along & off Tamil Nadu & south Andhra Pradesh coasts, Comorin area, Gulf of Mannar and Andaman Sea. Fishermen are advised not to venture into these areas.

- 12 July (Day 5): Heavy to Very Heavy Rainfall likely at isolated places over Uttarakhand, Andaman & Nicobar Islands, Konkan & Goa, ghat areas of Madhya Maharashtra, Telangana, Coastal Andhra Pradesh & Yanam, Coastal & South Interior Karnataka, Kerala & Mahe and Tamilnadu, Puducherry & Karaikal and Heavy Rainfall at isolated places over Jammu, Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Punjab, Haryana, Chandigarh & Delhi, West Uttar Pradesh, Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Odisha, Gujarat State, Marathwada, Rayalseema and North Interior Karnataka. Thundersquall (speed reaching 50-60 kmph) likely at isolated places over Andaman & Nicobar Islands; with gusty wind (speed reaching 30-40 kmph) at isolated places over East Rajasthan and with lightning at isolated places over Jammu, Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, West Rajasthan, Gujarat Region, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema and Tamilnadu, Puducherry & Karaikal. Strong Winds (speed 40-50 kmph gusting to 60 kmph) likely over Southwest & Westcentral Arabian sea; Northeast Arabian Sea and along & off Gujarat coast; Lakshadweep area and along & off Kerala & Karnataka coasts; South Bay of Bengal; Westcentral bay of Bengal along & off Tamil Nadu & south Andhra Pradesh coasts, Comorin area, Gulf of Mannar and Andaman Sea. Fishermen are advised not to venture into these areas.
- The weather outlook for seven days i.e., 08 Jul to 16 Jul 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 35.0-39.0°C and minimum temperature ranged between 22.6-30.9 °C. The morning and evening relative humidity during the week varied between 56-75 and 35-54%, respectively. The sunshine hours during the week ranged between 1.9-10.4 hrs/day. The evaporation rate ranged between 4.8-8.0 mm day⁻¹. Daily average wind speed varied from 3.2-7.0 kmhr⁻¹.

Contingency measure:

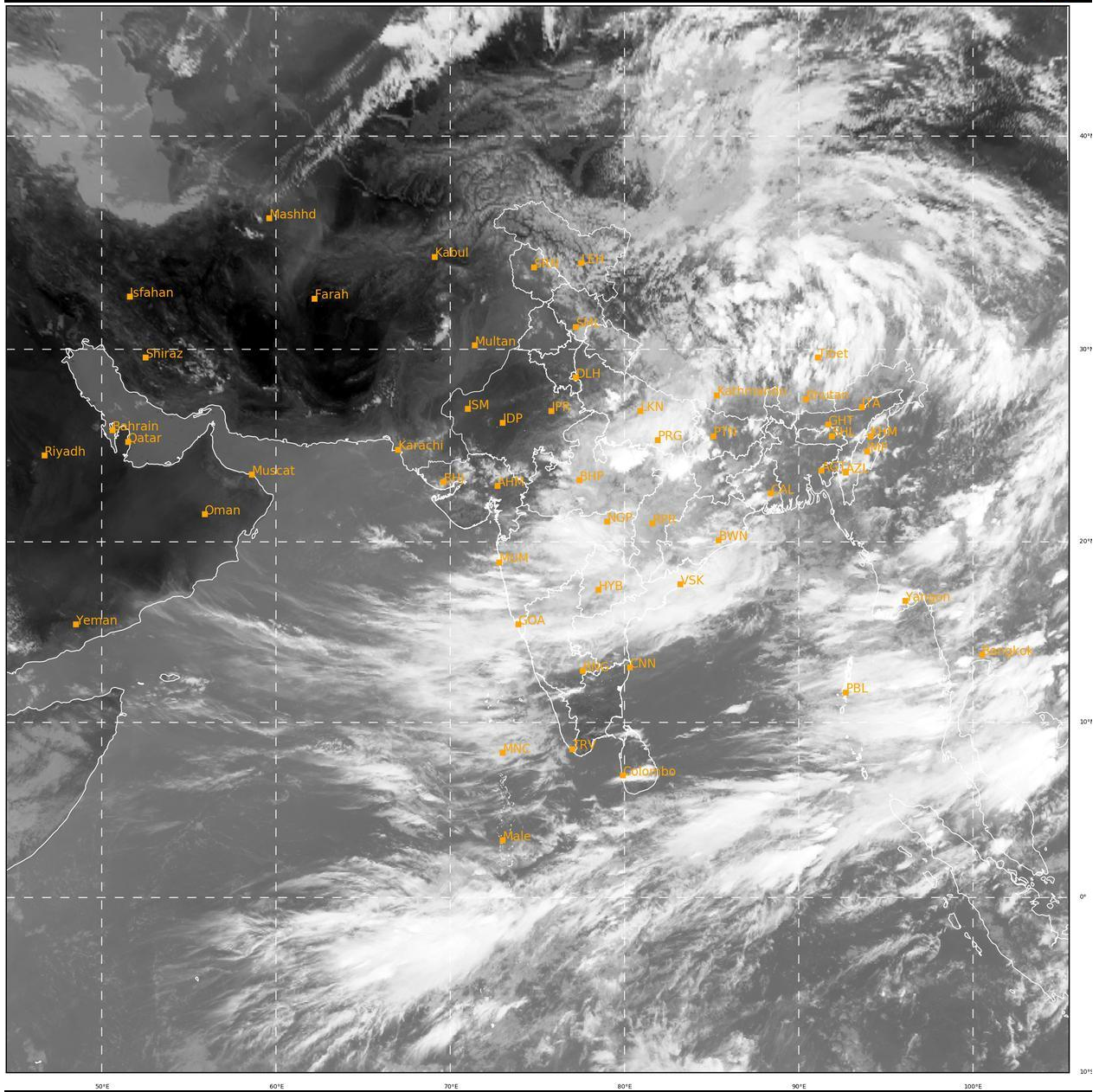
- **Field Crops Rice:** · Complete transplanting of rice during this period. Apply nitrogen fertilizer in 3 equal splits to all recommended varieties. The first split should be applied upto 7 days of transplanting and second split at 21 days of transplanting. The third split to short duration (PR 126 and PR 124) should be applied at 35 days of transplanting while for other varieties, it should be applied at 42 days of transplanting. Apply the second and the third split of nitrogen when water is not standing in the field. Irrigate on the third day of the application of fertilizer. Use recommended weedicides to control weeds by mixing with 60 kg of sand/acre in standing water within 2-3 days of transplanting. Start transplanting of Punjab Basmati 7, Punjab Basmati 5, Punjab Basmati 4, Punjab Basmati 3, Pusa Basmati 1637, Pusa Basmati 1718, Pusa Basmati 1121 and during the period. To check foot rot of Basmati rice, dip the seedlings roots for 6 hrs with *Trichoderma harzianum* @ 15 g/litre of water before transplanting.
- **Cotton:** Eradicate the weeds like kanghi buti, peeli buti, puth kanda etc growing on cotton field bunds, waste lands, road side and irrigation channels/canals to avoid further spread of whitefly to cotton field. Whitefly also attacks other alternate host crops like brinjal, potato, tomato, okra, moong, mash and guar. Regular surveillance should be done for timely management of whitefly on these crops. Regular surveillance of whitefly on cotton should also be done. Uproot and destroy leaf curl virus infected plant from time to time.
- **Sugarcane:** Earthing up of the sugarcane crop may be done if not done earlier during the period
- **Maize:** Control maize borer by spraying 30ml Coragen 18.5SC in 60 litres of water per acre. *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 (chlorantraniliprole) @ 0.4 ml or Delegate 11.7 SC (spinetoram) @ 0.5 ml or

Missile 5 SG (emamectin benzoate) @ 0.4 g per litre of water. Direct the spray nozzle towards the whorl, for its effective control. To control mixed weed flora in maize, spray 105 ml per acre Laudis 420 SC in 150 litres of water at 15-20 days after sowing with flat fan nozzle.

- Pulses: Sowing of mash (Mash 114, Mash 338) should be completed between last week of June to first week of July. · Sowing of moong (ML 1808, ML 2056 and ML 818) should be completed during the second fortnight of July as delayed sowing result in lower yields.
- Vegetables: Irrigate vegetable crops at weekly intervals if rainfall is not sufficient. Use 2 kg seed per acre for sowing of bottle gourd, sponge gourd, bitter gourd, ash gourd, tinda and 1.0 kg seed for wanga as per recommendations. 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: To protect the fruit plants from intense heat, apply frequent irrigations to the bearing as well as young fruit plants. Regularly remove the suckers arising from the rootstock portion of the newly planted fruit plants. Apply white wash mixture having copper sulphate mix on the main trucks of fruit trees to protect them from intense solar radiations and diseases during coming rainy season. Planning and layout for establishment of new evergreen fruit plant orchards should be started. Sowing of intercrops of moong and mash can be done in non-bearing/juvenile orchards. Keep suitable distance between main and intercrop. The irrigation system should also be separate for both crops.

SAT : INSAT-3D IMG
IMG_TIR1 10.8 um
LIC Mercator

08-07-2021/(0900 to 0926) GMT
08-07-2021/(1430 to 1456) IST



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IMD,DELHI

Figure: 1. Latest available satellite picture as on 08 Jul 2021 at 1456 Hrs (IST). (Source: IMD).

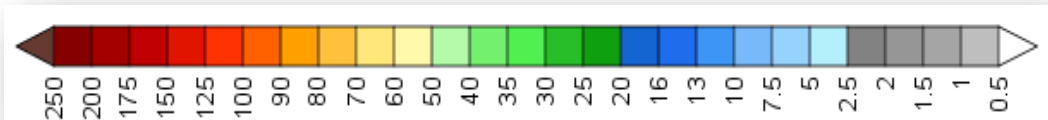
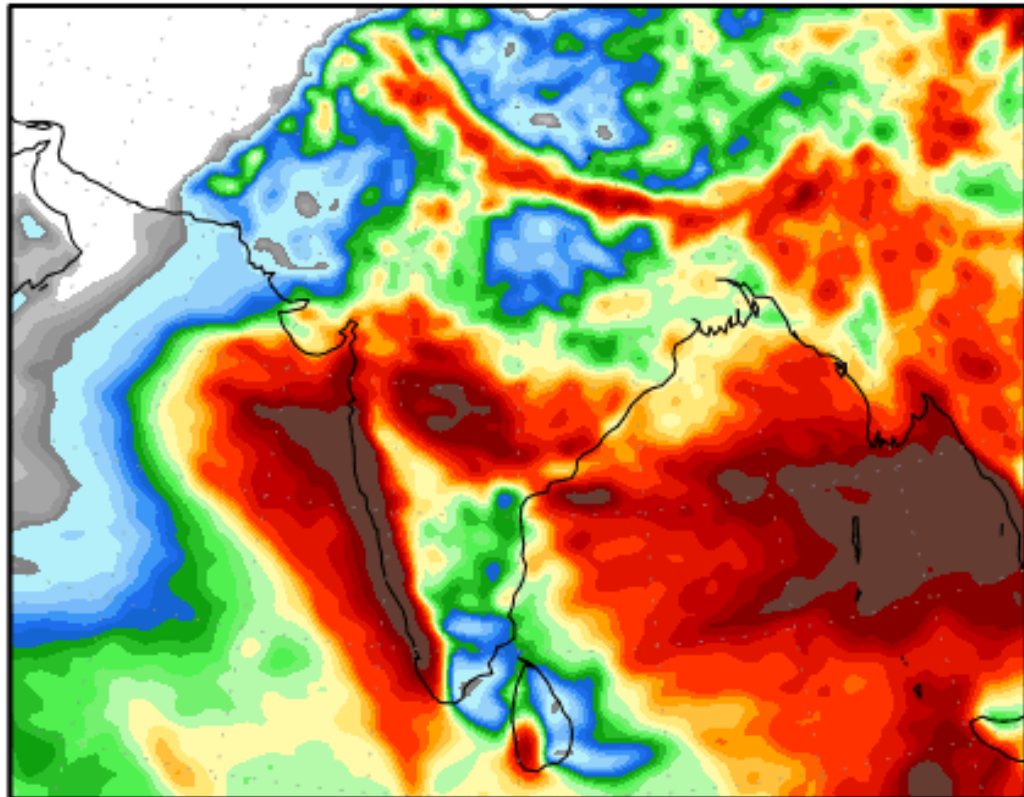


Figure:2. Precipitation forecast for 08 Jul to 16 Jul 2021 (Source: NOAA NCEP).

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