



राष्ट्रीय कृषि मौसम परामर्शी सेवाएं बुलेटिन National Agromet Advisory Services Bulletin

जारी करने की तिथि / Date of issue: 14 August 2023

आधारित / based on

विस्तारित अवधि मौसम पूर्वानुमान / Extended Range Weather Forecast (ERFS)

वैधता / Validity: 11 - 24 August 2023

जारीकर्ता / Issued by

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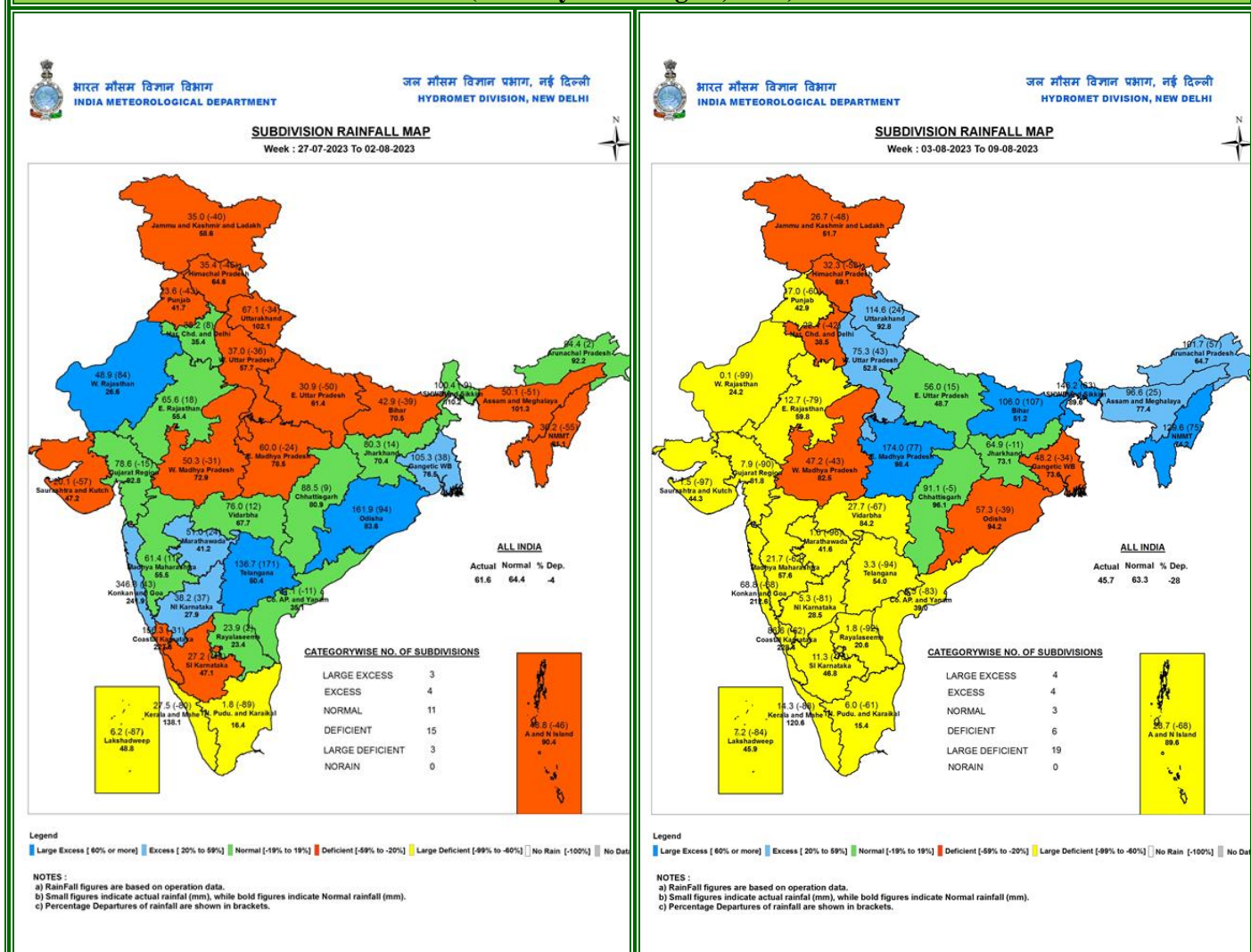
India Meteorological Department (IMD)

पृथ्वी प्रणाली विज्ञान संगठन

Earth System Science Organization

Realized Rainfall and Extended Range Forecast

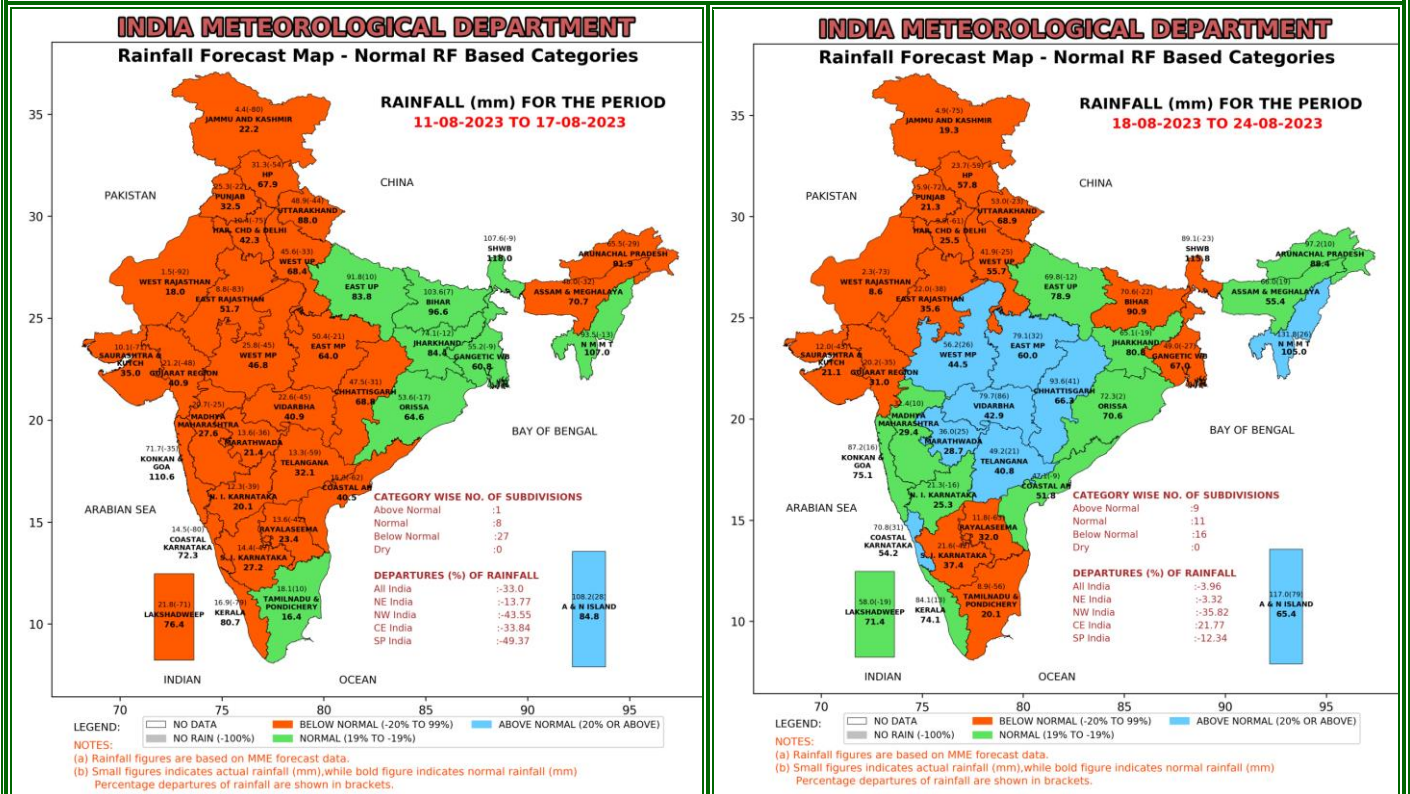
Realized Rainfall (27th July to 9th August, 2023)



- Normal or above normal rainfall occurred in both the weeks over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Jharkhand and Chhattisgarh.
- Normal or above normal rainfall occurred in either of the two weeks over Haryana Chandigarh & Delhi, Uttarakhand, Uttar Pradesh, Bihar, Gangetic West Bengal, Assam & Meghalaya, Nagaland Manipur Mizoram & Tripura (NMMT), Rajasthan, Gujarat Region, East Madhya Pradesh, Odisha, Maharashtra, Telangana, Andhra Pradesh & Yanam and North Interior Karnataka.
- Below Normal rainfall occurred in both the weeks over rest of the country.

Extended Range Forecast System

Rainfall forecast maps for the next 2 weeks (IC- 9th August) (11th August to 24th August, 2023)



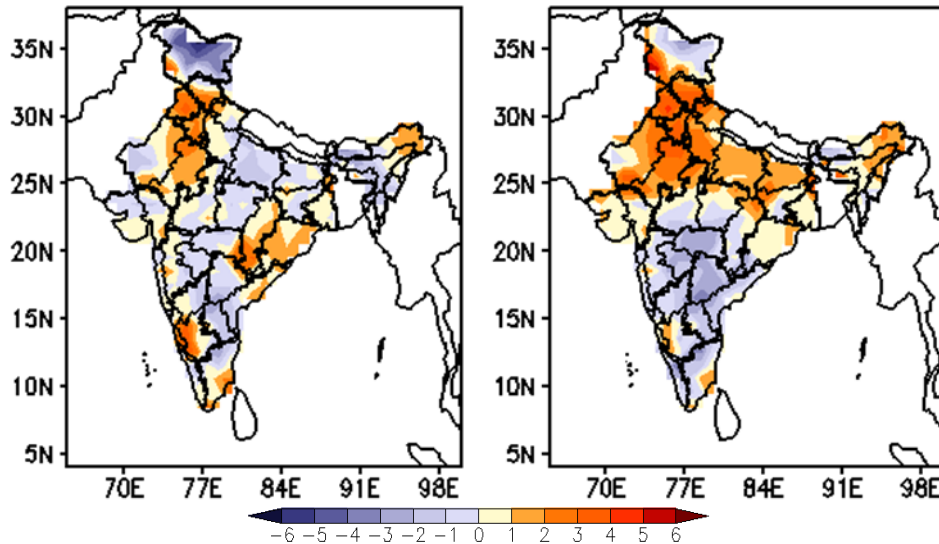
- **Week 1 (11.08.2023 to 17.08.2023):** Rainfall is likely to be below normal over most parts of the country except East India and East Uttar Pradesh.
- **Week 2 (18.08.2023 to 24.08.2023):** Rainfall is likely to be normal to above normal over Central & Northeast India and parts of East India and west coast.

**Maximum and Minimum temperature anomaly ($^{\circ}\text{C}$) forecast
for the next 2 weeks (IC- 9th August)
(11th August to 24th August, 2023)**

MME forecast Tmax anomaly (Deg C)

(Week1: 11Aug–17Aug)

(Week2: 18Aug–24Aug)



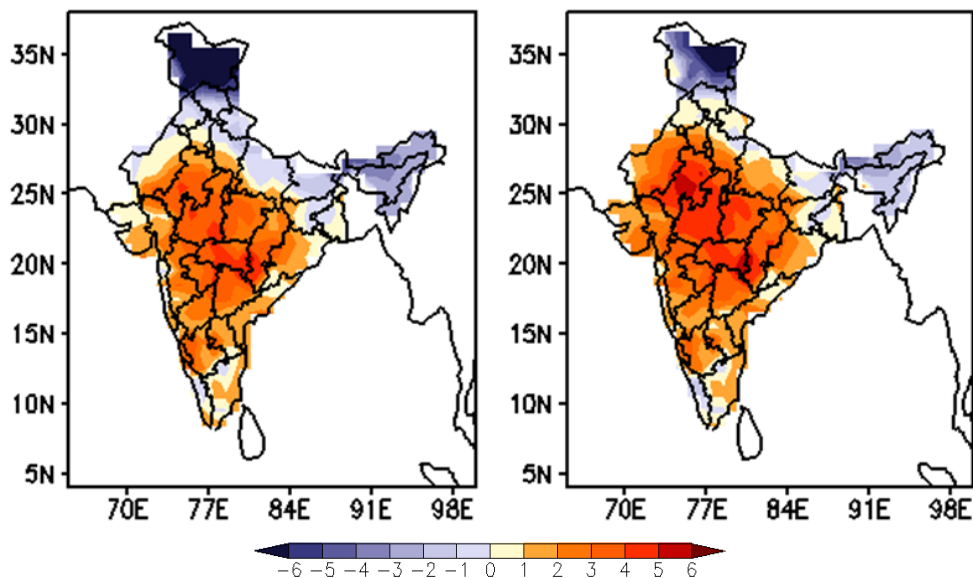
Maximum Temperature (Tmax)

- **Week 1 (11.08.2023 to 17.08.2023):** Tmax is likely to be above normal over some parts of North West, East and Peninsular India.
- **Week 2 (18.08.2023 to 24.08.2023):** Tmax is likely to be above normal over most parts of Indo-Gangetic Region and North East India.

MME forecast Tmin anomaly (Deg C)

(Week1: 11Aug–17Aug)

(Week2: 18Aug–24Aug)



Minimum Temperature (Tmin)

- **Week 1 (11.08.2023 to 17.08.2023) and Week 2 (18.08.2023 to 24.08.2023):** Tmin is likely to be above normal over most parts of the country.

Agromet Advisories

Uttar Pradesh

The amount of rainfall received over East Uttar Pradesh was 329 mm (-28% deficit) and over West Uttar Pradesh was 451 mm (15% excess) during 01 June - 11 August 2023. The extended range weather forecast (rainfall) for the next two weeks (11 - 17 August 2023 and 18 - 24 August 2023) is below normal over West Uttar Pradesh and normal over East Uttar Pradesh for week-1 and; week-2.

Western Uttar Pradesh

- Due to prevailing deficit rainfall conditions and forecast of below normal rainfall during next week, farmers are advised to provide light irrigation in *kharif* crops like sorghum (vegetative stage), maize (knee height stage), rice (tillering stage) etc.
- Due to the forecast of below normal rainfall, it is advised to do sowing of green gram (var: *Narendra Moong-1, Pant Moong-1, Pant Moong-3, Pant Moong-4, Samrat, Malaviya Janchetna, Malaviya Janapriya, Malaviya Jagriti Shweta, Swati, Virat and IPM -2-14*) and black gram (var: *Narendra Urd-1, Azad Urd-2, Azad Urd-3, Shekhar-1, Shekhar-2, Shekhar-3, Pant U-30 etc*)
- Under prevailing dry weather condition, farmers are advised to bathe the animals during morning and evening, keep them under shade and provide water 3-4 times in a day.

Eastern Uttar Pradesh

- Due to forecast of light to moderate rainfall during next week, farmers are advised to conserve rain water in the paddy fields by making broad and elevated bunds.
- Under prevailing weather conditions, farmers are advised for weeding and hoeing in the standing crops and vegetables and also advised for proper drainage in all *kharif* crops.
- Transplanting of brinjal, tomato, chilli and early cauliflower on ridge is advised.

Uttarakhand

858 mm (18% excess) rainfall was received over Uttarakhand during 01 June - 11 August 2023. The extended range weather forecast (rainfall) provided for the next two weeks (11 - 17 August 2023 and 18 - 24 August 2023) over Uttarakhand is below normal for week-1 and; week-2.

- Under prevailing weather conditions, farmers are advised to harvest the ripe crop/vegetables and store them in safe places.
- Due to the possibility of light rainfall, farmers are advised to strengthen the bunds in rice fields which is at tillering stage and avoid the application of fertilizers.

Himachal Pradesh

600 mm (32% large excess) rainfall was received over Himachal Pradesh during 01 June - 11 August 2023. The extended range weather forecast (rainfall) provided for the next two weeks (11 - 17 August 2023 and 18 - 24 August 2023) over Himachal Pradesh is below normal for week-1 and week-2.

- Heavy to rather heavy rainfall, landslides, cloudburst, mud flow and flood situation in sporadic areas of the state caused significant damage to apple crop as well as other fruit trees in parts of the state. The general public is cautioned not to go near the banks of rivers and drain out the excess water in maize, soybean and vegetable fields.
- Due to below normal rainfall in major paddy growing areas, farmers are advised to make proper bunds in paddy fields for water conservation. First topdressing of nitrogen with 65 kg urea / ha (2.6 kg urea / kanal) is in transplanted rice while in direct seeded crop it could be reduced to 45 kg urea / ha (1.75 kg urea / kanal)
- Under prevailing weather condition, it is advised to prepare proper bunds in paddy fields for water conservation.

Jammu

395 mm (15% excess) rainfall was received over Jammu during 01 June - 11 August 2023. The extended range weather forecast (rainfall) provided for the next two weeks (11 - 17 August 2023 and 18 - 24 August 2023) over Jammu is below normal for week-1 and; week-2.

- As per forecast of below rainfall during next two week, it is advised to provide irrigation in rice crop as per requirement crop which is at tillering stage.
- To control stem borer in maize crop (knee height stage), it is advised to apply Carbofuran granules @ 8kg/acre (4-5 granules per plant) during clear weather only.

Punjab

319 mm (14% excess) rainfall was received over Punjab during 01 June - 11 August 2023. The extended range weather forecast (rainfall) provided for the next two weeks (11 - 17 August 2023 and 18 - 24 August 2023) over Punjab is below normal for week-1 and; week-2.

- Prevailing weather is optimum for sowing of okra (var: *Punjab Suhawani* and *Punjab Lalima*) and cowpea.
- Farmers are advised that after draining out excess rainwater from the rice field, apply recommended dose of nitrogen fertilizer. Keep water standing in paddy field only for 2 weeks and thereafter apply irrigation.
- In flooded areas, it is advised to drain out excess water from the fields of maize, cotton, vegetables, pulses, fodder and orchards. Farmers are also advised not to irrigate or spray the crop during the period.
- Farmers are advised to harvest the cucurbits and other vegetables like tomato, chilli, brinjal and okra at regular intervals to get maximum yield.

- To control jassid in cotton it is advised to spray Flonicamid 50 % WG @ or Imidacloprid 17.80 % SL 3 ml per 10 litres of water.

Rajasthan

459 mm (18% excess) rainfall was received over East Rajasthan during 01 June - 11 August 2023. The extended range weather forecast (rainfall) provided for the next two weeks (11 - 17 August 2023 and 18 - 24 August 2023) over East Rajasthan is below normal for week-1 and; week-2.

- Due to the high humidity and temperature, there is a possibility of increase in outbreak of sucking pest in soybean crop. To prevent, it is advised to spray of Nimbidin @ 3 ml per litre of water during clear weather condition.
- Under prevailing weather condition, farmers are advised for transplanting of chilli, brinjal and early cauliflower in raised bed.
- Earthing up followed by hoeing and weeding is advised in groundnut crop (20-25 DAS).

Hisar

344 mm (33% excess) rainfall was received over Hisar during 01 June - 11 August 2023. The extended range weather forecast (rainfall) provided for the next two weeks (11 - 17 August 2023 and 18 - 24 August 2023) over Hisar is below normal for week-1 and; week-2.

- Farmers are advised to apply fertilizers/herbicides in rice crops which is at vegetative stage as recommended by CCS HAU, Hisar and apply need-based irrigation for maintenance of proper moisture.
- Due to possibility of dry weather condition, farmers are advised to spray pesticide and fungicide in cotton and pearl millet crop for management of insects and diseases and apply irrigation.

Assam

984 mm (-15% deficit) rainfall was received over Assam during 01 June - 11 August 2023. The extended range weather forecast (rainfall) provided for the next two weeks (11 - 17 August 2023 and 18 - 24 August 2023) over Assam is below normal for week-1 and normal for week-2.

- Due to flood/ inundation situation in some districts of the state, farmers are advised to download “MAUSAM” app for weather forecast and “DAMINI” app for lightning alert, intending to help save lives of humans as well as livestock. Provide staking to vegetable crop and drain out excess amount of water from low lying crop field.
- Farmers may continue transplanting of 25 days old *Sali* paddy seedlings of short and medium duration varieties in the main field by maintaining a row-to-row and plant-to-plant spacing of 20×15 cm.
- In case of long duration rice varieties, 35-40 days old seedlings are are advised to transplant at 25×15 cm spacing. It is also advised to plant 2-3 seedlings per hill, at a depth of 4-5 cm, for all varieties.

- Considering the probability of occurrence of light rainfall in some places, it is advised to sow the seeds of green gram and black gram crop in the main field.

West Bengal

492 mm (-29% deficit) rainfall received over Gangetic West Bengal and rainfall received over Sub Himalayan West Bengal was 1300 mm (11% excess) during 01 June - 11 August 2023. The extended range weather forecast (rainfall) for the next two weeks (11 - 17 August 2023 and 18 - 24 August 2023) is normal over Gangetic West Bengal and Sub-Himalayan West Bengal during week-1 and; below normal over Gangetic West Bengal and Sub-Himalayan West Bengal for week-2.

- Farmers are advised to complete transplanting of kharif rice in the monsoon dependent area.
- If transplanting of rice is not possible due to insufficient/deficit rainfall in an unirrigated area, farmers are advised to go for alternate planting (short duration pulses: Mung, Kalai etc) within the second week of August.
- To protect the rice from seed borne diseases like bacterial leaf blight (*Xanthomonas oryzae*), blast (*Pyricularia oryzae*), leaf spot (*Helminthosporium oryzae*) application of bio-fungicide *Pseudomonas fluorescens* 1.5% WP @ 5g/kg as seed treatment material before sowing is advised.
- To protect the cattle from ectoparasite infestation, it is advised to keep the cattle shed clean and dry and also apply neem oil inside the shed.

Jharkhand

387 mm (-36% deficit) rainfall was received over Jharkhand during 01 June - 11 August 2023. The extended range weather forecast (rainfall) provided for the next two weeks (11 - 17 August 2023 and 18 - 24 August 2023) over Jharkhand is normal for week-1 and week-2.

- As per the forecast of light rainfall during next week, it is advised that do not allow water-logging condition in vegetable nurseries and crops and make proper drainage in the field.
- In areas of the state which experiencing below-normal rainfall, farmers are recommended to sow aerobic paddy in areas with medium and low land. Alternatively, they can opt to sow black gram or green gram crops.
- Intermittent dry and wet weather condition, is favourable for incidence of bacterial leaf blight disease and sheath blight in early sown nursery seedlings. Farmers are advised to go for foliar spray of Hexaconazole with Landomycin @ 1.0 g/litre to prevent the spread of the disease.
- If leaf blast is observed in rice nursery, it is advised to spray Tebuconazole 50% + Trifloxystrobin 25% WG @ 0.4 g or Isoprothiolane 40 EC @ 1.5 ml per litre of water. Repeat the spray at 7-10 days interval.

- Due to high humidity there is a chance of downy mildew disease in cucurbits. Hence, spraying of Mancozeb 75 WP @ 2 g per litre of water is advised.

Chhattisgarh

626 mm (-9% deficit) rainfall was received over Chhattisgarh during 01 June - 11 August 2023. The extended range weather forecast (rainfall) provided for the next two weeks (11 - 17 August 2023 and 18 - 24 August 2023) over Chhattisgarh is below normal for week-1 and; above normal for week-2.

- Due forecast of below normal rainfall, farmers are advised for adopting water conservation techniques.
- The present weather is suitable for planting of fruit crops like *papaya*, *mango*, *guava* and *banana* and agroforestry plants. Therefore, farmers are advised to complete planting operation in time.

Odisha

646 mm (-5% deficit) rainfall received over Odisha during 01 June - 11 August 2023. The extended range weather forecast (rainfall) provided for the next two weeks (11 - 17 August 2023 and 18 - 24 August 2023) over Odisha is normal for week-1 and; week-2.

- August and September are the optimum time for tomato planting. Recommended tomato varieties are *Utkal Kumari (BT-10)*, *Utkal Deepti (BT-2)*, *Utkal Raja*, *Utkal Pragyan* and *Swarna Sampad*.
- Farmers are advised to complete all inter-culture operation in groundnut, before start of flowering, else it will damage the peg formation and there will be substantial reduction in yield.

Gujarat

642 mm (8% excess) rainfall received over Gujarat during 01 June - 11 August 2023. The extended range weather forecast (rainfall) provided for the next two weeks (11 - 17 August 2023 and 18 - 24 August 2023) over Gujarat is below normal for week-1 and week-2.

- Farmers are advised for inter culturing, weeding, thinning, gap filling, top dressing of fertilizer, etc operations at vapsa condition in sown *kharif* crops.
- Under prevailing weather condition, planting of banana crop is advised from 15th June to 15th August. Select tissue culture plant of varieties like, *Grand Naine*, *Rubusta*, *Basrai* for new planting.

Maharashtra

414 mm (-11% deficit) rainfall over Madhya Maharashtra; 566 mm (-5% deficit) rainfall over Vidarbha; 338 mm (-7% deficit) rainfall over Marathwada; and 2453 mm (19% excess) in Konkan region was recorded during 01 June - 11 August 2023. The extended range weather forecast (rainfall) for the next two weeks (11 - 17 August 2023 and 18 - 24 August 2023) is below normal over Konkan, Madhya Maharashtra, Marathwada and Vidarbha for week-1 and; above normal over Marathwada and Vidarbha and normal over Konkan and Madhya Maharashtra for week-2, respectively.

Vidarbha

- In early sown *kharif* crops, inter culture operation (weeding/hoeing) is advised during clear weather for the management of weeds and improve soil aeration.
- For the management of early stage incidence of aphids/jassids in cotton, application of 5% neem extract or Azadirachtin 0.03% (300 ppm) @ 50 ml per 10 litres of water is advised.
- Keep farm animals indoor during thunderstorm/lightning. In farm livestock preventive vaccination for foot and mouth disease (FMD) and preventive deworming for flat worms is advisable.

Madhya Maharashtra

- Nipping the apical bud of pigeon pea crop is advised for more branching.
- Follow the intercropping (Pearl millet + Pigeon pea 2:1) as a crop contingency measure if the sowing is delayed by more than two weeks than normal sowing window.
- In areas of rainfall deficit condition and the irrigation water availability is less, it is advised to flood the root zone of fruit trees (only) with water to leach out the salts and wet the entire soil depth before pruning and then cover with mulch. Thereafter irrigate as per availability of water

Parbhani

- If water stress is observed in cotton crop which is at growth and branching stage, irrigation management is advised with the help of drip irrigation system as per availability of water.
- Due to dry spell and cloudy weather condition sucking pests may increase in cotton crop. To manage, it is advised to spray 5% NSKE or Acetamiprid 20% @ 2 g per 10 litres of water during clear weather condition.
- Light hoeing is advised in pulse crops for weed management and for soil moisture conservation.
- Due to current humid and cloudy weather conditions, aphids may be observed in black gram / green gram. For management, it is advised to spray 5% NSKE or Dimethoate 30% EC @ 1ml per liter of water during clear weather condition.

Kerala

872 mm (-41% deficit) received over Kerala during 01 June - 11 August 2023. The extended range weather forecast (rainfall) for the next two weeks (11 - 17 August 2023 and 18 - 24 August 2023) is below normal for week-1 and; normal for week-2.

- In order to reduce the micronutrient deficiency in paddy, it is advised to spray 10 g of sampoorna mixture of paddy in one litre of water.
- Leaf rust disease may become severe due to increase in relative humidity. Apply 0.5% Bordeaux mixture or plant wax 20 EC @ 1-2 ml per litre to control the disease.
- During rainy season, there is a chance of Rhizome rot in banana. To prevent, it is advised to ensure proper drainage facilities and drench the basin with three litre of *pseudomonas* solution (20 g per one litre of water).

Anantapur

151 mm (-23% deficit) rainfall was received over Rayalaseema and 319 mm (-1% deficit) rainfall was received over Coastal Andhra Pradesh during 01 June - 11 August 2023. The extended range weather forecast (rainfall) provided for the next two weeks (11 - 17 August 2023 and 18 - 24 August 2023) is below normal over Rayalaseema and Coastal Andhra Pradesh for week-1 and; normal over Coastal Andhra Pradesh and below normal over Rayalaseema for week-2.

- The present weather conditions are favourable for sucking pests in groundnut (vegetative stage) grown in Ananthapuramu, Kurnool, Kadapa and Chittoor districts. To control, farmers are advised to spray Imidacloprid @ 0.3 ml/litre or Lambda-cyhalothrin 05 % EC @ 1ml litre of water.
- Farmers growing pearl millet are advised to select bajra varieties viz., *ABV-04*, *Raj-171*, *Pusa-61* and *PSV-56* and treat the seeds with Thiram or Captan @ 3g/kg of seed.

Karnataka

343 mm (-18% deficit) rainfall received over South Interior Karnataka, 2169 mm (-5% deficit) over Coastal Karnataka and 278 mm (6% excess) rainfall received over North Interior Karnataka during 01 June - 11 August 2023. The extended range weather forecast (rainfall) provided for the next two weeks (11 - 17 August 2023 and 18 - 24 August 2023) is below normal over North Interior Karnataka, Coastal Karnataka and South Interior Karnataka for week-1 and; normal over North Interior Karnataka, above normal over Coastal Karnataka and below normal over South Interior Karnataka for week-2.

South Interior Karnataka

- Due to dry spells and forecast of below normal rainfall during next week, mulching is advised in red gram crop which is at vegetative stage to conserve the soil moisture.

- In groundnut crop (flowering stage) intercultural operation is recommended for the conservation of soil moisture due to a shortage of rainfall.

North Interior Karnataka

- If sufficient soil moisture is available take up sowing of Kharif crops immediately. Sowing of Bajra, Groundnut (bunch type), Maize, Bt. Cotton, Redgram, Sesamum or Navane may be taken up on preference.
- To make efficient use of available soil and water resources and to get higher returns, the following intercropping systems can be taken up in light and medium black soils. Bajra + Groundnut(bunch) in 2:4 row proportion ; Bajra + Redgram in 2:1 row proportion ; Groundnut (bunch) + Redgram in 3:1 or 4:2 row proportion, Redgram + sesamum in 1:2 or 2:4 row proportion

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