



राष्ट्रीय कृषि मौसम परामर्शी सेवाएं बुलेटिन
National Agromet Advisory Services Bulletin

जारी करने की तिथि/ **Date of issue: 16 July 2024**

आधारित/**based on**

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

वैधता/**Validity: 12 July - 25 July 2024**

जारीकर्ता/**Issued by**

अखिल भारतीय समन्वित कृषि-मौसम विज्ञान अनुसंधान परियोजना

AICRP on Agro-Meteorology (AICRPAM)

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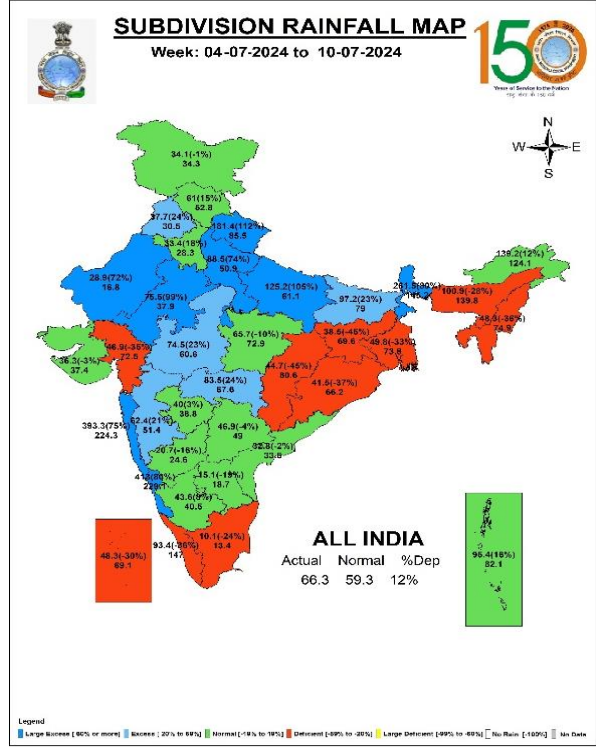
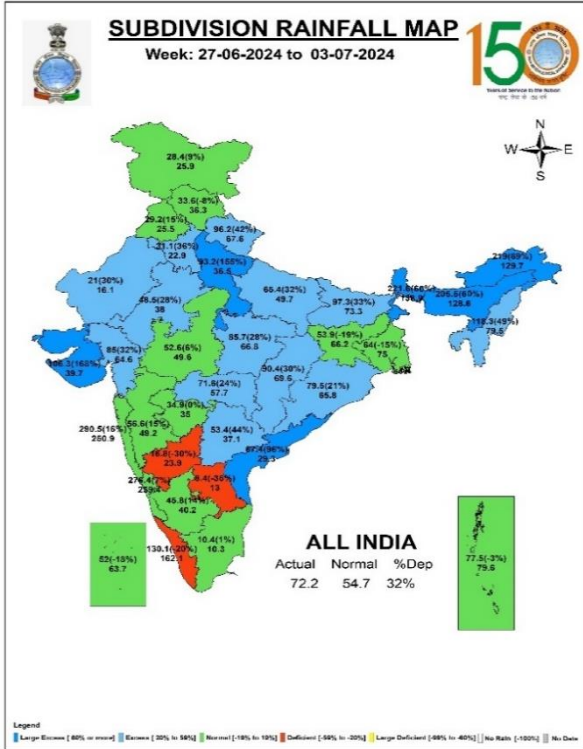
India Meteorological Department (IMD)

पृथ्वी प्रणाली विज्ञान संगठन

Earth System Science Organization

Realized Rainfall and Extended Range Forecast

Realized Rainfall (27th June to 10th July, 2024)

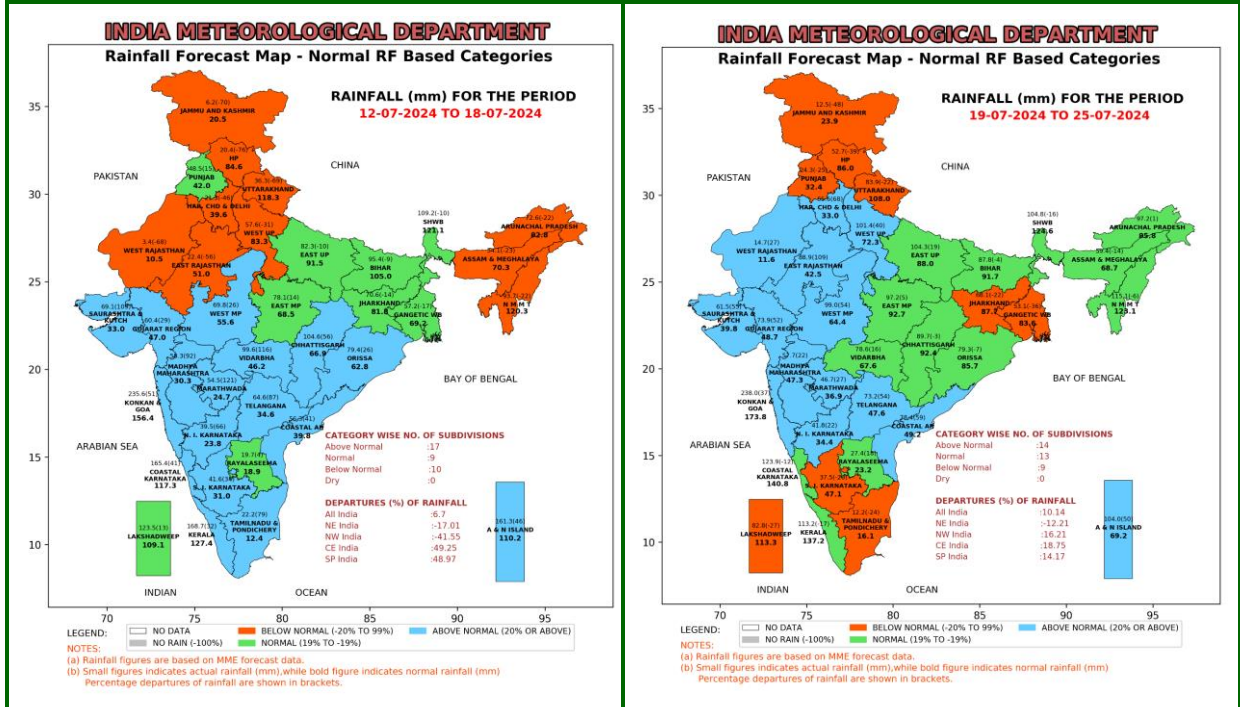


- Normal or above normal rainfall occurred in both the weeks over Jammu & Kashmir and Ladakh (UTs), Himachal Pradesh, Uttarakhand, Punjab, Haryana Chandigarh & Delhi, Uttar Pradesh, Bihar, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Saurashtra & Kutch, Rajasthan, Madhya Pradesh, Maharashtra, Telangana, Coastal Andhra Pradesh, Coastal Karnataka, South Interior Karnataka and Andaman & Nicobar Islands.
- Normal or above normal rainfall occurred in either of the two weeks over Gujarat Region, Chhattisgarh, Jharkhand, Odisha, Gangetic West Bengal, Assam & Meghalaya, Nagaland Manipur Mizoram & Tripura (NMMT), North Interior Karnataka, Rayalaseema, Tamil Nadu Puducherry & Karaikal and Lakshadweep.
- Below Normal rainfall/no rain occurred in both the weeks over Kerala & Mahe.

Extended Range Forecast System

Rainfall forecast maps for the next 2 weeks (IC- 10th July, 2024)

(12th to 25th July, 2024)



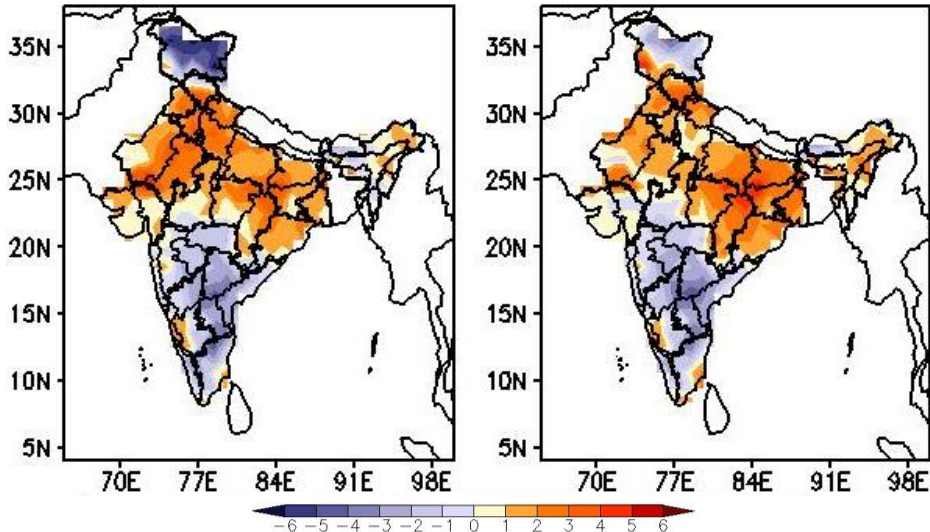
- **Week 1 (12.07.2024 to 18.07.2024):** Rainfall is likely to be above normal over Central parts of India and along West coast. However, it is likely to be below normal over Northwest & Northeast India and parts of East India.
- **Week 2 (19.07.2024 to 25.07.2024):** Rainfall is likely to be above normal over Central parts of India. However, it is likely to be below normal over parts of East India, North India and south peninsula.

**Maximum and Minimum temperature anomaly ($^{\circ}$ C) forecast
for the next 2 weeks (IC- 10th July, 2024)
(12th to 25th July, 2024)**

MME forecast Tmax anomaly (Deg C)

(Week1: 12Jul–18Jul)

(Week2: 19Jul–25Jul)



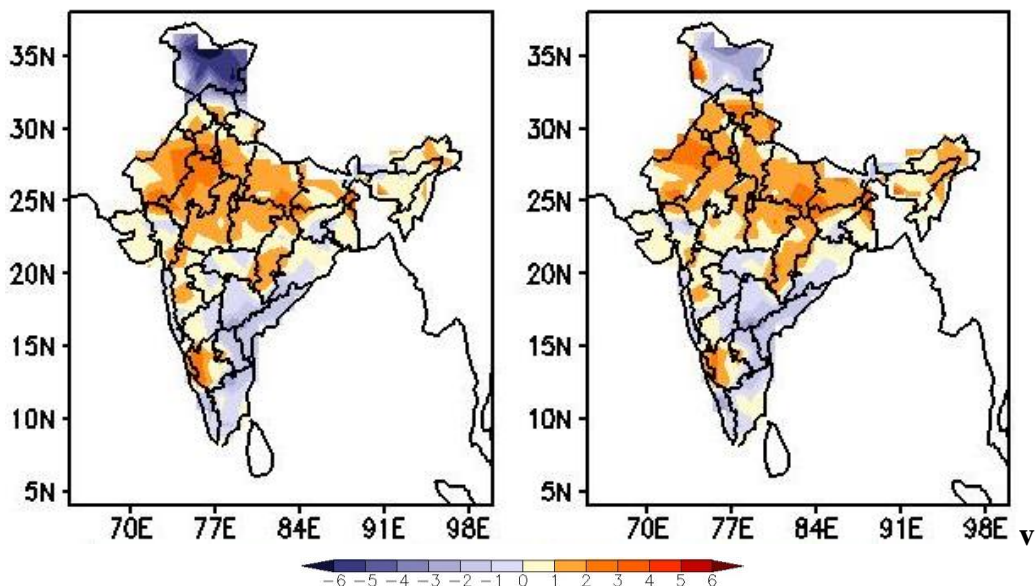
Maximum Temperature (Tmax)

- **Week 1 (12.07.2024 to 18.07.2024):** Maximum temperature is likely to be above normal over Northwest India, East India and parts of Karnataka.
- **Week 2 (19.07.2024 to 25.07.2024):** Maximum temperature is likely to be above normal over Northwest India, East India, Northeast India and parts of Karnataka.

MME forecast Tmin anomaly (Deg C)

(Week1: 12Jul–18Jul)

(Week2: 19Jul–25Jul)



Minimum Temperature (Tmin)

- **Week 1 (12.07.2024 to 18.07.2024) and Week 2 (19.07.2024 to 25.07.2024):** Minimum temperature likely to be above normal over most parts of the country except Kerala, Telangana and regions along East Coast.

Strategic Agricultural Planning based on rainfall till 25 July 2024

Agromet Advisories

Kerala

705 mm (-26% deficit) rainfall was received over Kerala from 01 June to 14 July 2024. The extended range weather forecast (rainfall) for the next two weeks (12 July - 18 July 2024 and 19 July - 25 July 2024) is above normal rainfall for week 1 and normal for week 2.

- Propping of the banana plants is recommended. Make necessary arrangements for proper drainage in the fields. Fertilizer application may be postponed during heavy rainfall periods.
- During the rainy season, leaf fall in nutmeg is likely. As a prophylactic measure to manage leaf fall in nutmeg, spray 1% Bordeaux mixture. Proper drainage facilities must be ensured.
- During rainy season, there is a chance of Rhizome rot in banana. Drench the basin with pseudomonas solution (20 g / one litre of water) as a prophylactic measure.

Tamil Nadu

147 mm (88% large excess) rainfall was received over Tamil Nadu from 01 June to 14 July 2024. The extended range weather forecast (rainfall) for the next two weeks (12 July - 18 July 2024 and 19 July - 25 July 2024) is above normal rainfall for week 1 and below normal for week 2.

- Considering the high wind speed with light rainfall it is advised to provide propping to the sugarcane by tying the opposite row to prevent it from lodging.
- With the receipt of anticipated rainfall, land preparation and sowing may be initiated for irrigated Cambodia cotton and completed before August 15.
- Due to the forecast of above-normal rainfall this week, it is advised to provide drainage facilities in all crop fields. Postpone the intercultural / plant protection activities like fertilizer and pesticide application, till the rain stops.
- As strong winds coupled with rainfall are expected staking and drainage facilities are advised to provide to young rubber, banana, and fruit trees

Karnataka

239 mm (2% excess) rainfall over South Interior Karnataka; 1443 mm (7% excess) rainfall over Coastal Karnataka and 175 mm (14% excess) rainfall over North Interior Karnataka was received from 01 June to 14 July 2024. The extended range weather forecast (rainfall) provided for the next two weeks (12 July - 18 July 2024 and 19 July - 25 July 2024) is above normal over South Interior Karnataka, Coastal Karnataka and North Interior Karnataka for week 1 and; above normal over North Karnataka below normal over South Karnataka and normal over Coastal Karnataka during week 2.

South Interior Karnataka

- Wherever, the long-duration crops like redgram, and castor have been sown, undertake earthing-up operations in addition to the above agronomic measures. Earthing up makes a better availability of soil moisture to the crop rows through the conversion of the land into ridges and furrow systems.

- Due to high humidity (warm and humid weather) possibility of pest and disease build-up is higher in already sown crops. Take prophylactic measures depending on the crop.
- Take up land preparation and strengthen the bund with fodder grass which will facilitate conservation of rainwater due to monsoon showers. Ploughing across the slope will make *in situ* soil moisture conservation.
- In South Interior Karnataka, undertake sowing of red gram, maize, groundnut, cowpea and black gram
- **Under mono-cropping the long-duration crops:**
 - ✓ **Redgram:** *TTB-7, BRG-1, 2, 4 and 5*
 - ✓ **Maize:** *Ganga-11, Deccan -103, Vijaya composite, Composite NAC-6004,6002, Hybrid-Nityashree (NAH-2049)*
- **Under double cropping the medium to short duration crops:**
 - ✓ **Groundnut:** *TMV-2, JL-24, KCG-6,*
 - ✓ **Cowpea:** *TVX-944, KBC-1,*
 - ✓ **Green gram:** *PS-16, PDM-84,178,*
 - ✓ **Black gram:** *Karagao-3, T-9, Rashmi (LBG-625).*

Andhra Pradesh

200 mm (84% large excess) rainfall was received over Rayalaseema, and 233 mm (34% excess) was received over Coastal Andhra from 01 June to 14 July 2024. The extended range weather forecast (rainfall) provided for the next two weeks (12 July - 18 July 2024 and 19 July - 25 July 2024) is normal over Rayalaseema and above normal over Coastal Andhra Pradesh for week 1 and; week 2.

- The optimum sowing time for the castor is June 15 to July 31. Farmers are advised to select high-yielding castor hybrids like., *DCH-519, PCH-111, PCH-222, ICH-66, ICH-5.*
- Cotton growing farmers are advised to select short-duration cultivars as much as feasible and suggested to take up sowing on a community basis to avoid the spread of pink bollworm. Farmers are advised to install pheromone traps with PBW lure@ 4 to 6 per acre 40 days after sowing.
- North Coastal Zone of Andhra Pradesh, farmers are advised to go for earthing up in sugarcane crop for 120 days and propping to avoid crop lodging due to winds.
- Farmers are advised to cultivate high-yielding varieties of Korra like *Suryanandi, SiA 3085, SiA 3156, Renadu, Garuda and Mahanandi.* The seed rate of Korra 2 kg/acre for line sowing, 4 kg/acre for broadcasting and line sowing: 25cm x 10 cm.

Odisha

246 mm (-29% excess) rainfall was received over Odisha from 01 June to 14 July 2024. The extended range weather forecast (rainfall) provided for the next two weeks (12 July - 18 July 2024 and 19 July - 25 July 2024) is above normal over Odisha for week 1 and; normal for week 2.

- Keep rainwater in the main rice field by bunding for timely puddling and transplanting. For better utilization of soil moisture, go for land preparation for the sowing of non-paddy crops like groundnut, arhar, castor, green gram, black gram and sesame in upland. Cover the vegetable nursery with polythene to protect it from heavy rain and make drainage arrangement.
- To manage gall midge, stem borer, caseworm, leaf folder and root knot nematode in paddy, drench the soil with Thiamethoxam 25 % WG@3ml/10 L water or Chlorantraniliprole 08.80 % + Thiamethoxam 17.50 % SC@ 2ml/L water at nursery 7 days before transplanting.
- Cover the vegetable nursery with polythene to protect it from heavy rain and make drainage arrangements.

Maharashtra

297 mm (15% excess) rainfall over Madhya Maharashtra, 233 mm (13% excess) Marathwada, 1445 mm (25% excess) Konkan, and 287 mm (-7% deficit) rainfall over Vidarbha was recorded from 01 June to 14 July 2024. The extended range weather forecast (rainfall) for the next two weeks (12 July - 18 July 2024 and 19 July - 25 July 2024) is above normal rainfall over Konkan, Vidarbha, Madhya Maharashtra and Marathwada for week 1; and above normal over Konkan, Madhya Maharashtra, Marathwada and normal over Vidarbha for week 2, respectively.

Parbhani

- In view of the forecast of above normal rainfall, make arrangements to drain out excess water from *kharif* crops, orchards and vegetables.
- Under prevailing weather conditions, land preparation for *adsali* sugarcane (varieties such as *Co86032*, *Co-M- 0265*, *VSI-8005*) is advised.
- Complete transplanting of 45-day-old seedlings of vegetables like brinjal, tomato & chilli during clear weather.
- Remove tillers from the pomegranate orchard. It is advised that water may not stagnated in pomegranate orchard and drain out excess water from the pomegranate orchard.

Vidarbha

- Complete remaining sowings using early maturing varieties of cotton under *vapsa* condition, emphasis should be placed on multi-cropping and inter-cropping. Drain out excess water from waterlogged areas of standing crop fields. In early sown cotton fields undertake inter culture (hoeing/weeding) during clear weather
- Drain out excess water from waterlogged areas of standing soybean crop field. Complete remaining sowings using early maturing varieties of soybean under Whapasa condition. Recommended soybean varieties are *JS 93-05*, *JS 95-60*, *JS 20-29*, *JS 20-34*, *MAUS-71*, *MAUS-158*.
- In Vidarbha, in view of thunderstorm accompanied with lightning and heavy rainfall at isolated places of the region, it is advised to make arrangements for drainage of excess water from *kharif* crops, vegetable nurseries and orchards. Complete sowing of *kharif* crops like soybean, cotton, pigeon pea, sorghum etc at *wapasa* conditions during clear weather.

Gujarat

220 mm (-21% deficit) rainfall was received over Gujarat from 01 June to 14 July 2024. The extended range weather forecast (rainfall) provided for the next two weeks (12 July - 18 July 2024 and 19 July - 25 July 2024) over Gujarat is above normal for week 1 and week 2.

- Drain out excess rainwater from standing sugarcane fields. Postponed spraying chemical and fertilizer application. Postponed the different activities of farm operations. Prop the sugarcane canes with strong bamboo or tie the canes together in a clump with sugarcane leaves to protect against wind and heavy rain.
- Inter-cultivation and weeding operations at *wapasa* condition in cotton sown crop is advised. Carry out a thinning operation where two or more extra plants germinated and undertake a gap-filling operation in the sown cotton field.
- During the rainy season, give enough slop on the floor of the animal shed to avoid water logging. Don't keep the animal under a tree when there is heavy lightning during rain. Protect the animals from electric currents when it is raining, and keep away from appliances like poles, power boxes, and broken wires where the current is on.

Chhattisgarh

259 mm (-25% deficit) rainfall was received over Chhattisgarh from 01 June to 14 July 2024. The extended range weather forecast (rainfall) provided for the next two weeks (12 July - 18 July 2024 and 19 July - 25 July 2024) over Chhattisgarh is above normal for week 1 and normal for week 2.

- Plant the prepared seedlings of rainy-season vegetable crops. Plant vine crops like pumpkin, gourd, bitter melon etc. in the garden and provide support for climbing its vines. For direct sowing arrange the improved varieties of vegetable crops and prepare.
- Mulching is advised in ginger, turmeric, elephant yam and taro root crops and managed the drainage channel before the rainy season.
- Cultivation of *kharif* paddy may be done using a suitable method; in line sowing method, sowing is done using seed cum fertilizer drill in well-pulverized field at a distance of 20 cm and at a depth not more than 3-4 cm; calibrate the seed drill for maintaining proper seed rate; in transplanting method, prepare the nursery in approximately 1/10 portion of the field; keep the seed rate 50 Kg/ha for the thick grained varieties and 40 kg/ha for thin grained varieties

Assam

866 mm (15% excess) rainfall received over Assam from 01 June to 14 July 2024. The extended range weather forecast (rainfall) provided for the next two weeks (12 July - 18 July 2024 and 19 July - 25 July 2024) over Assam is below normal for week 1 and normal for week 2.

- Flood conditions prevailing in the state due to forecast of above-normal rainfall, Brahmaputra river has been flowing above the danger level. About 29 districts in Assam were affected. Specific advisory issued for flood conditions:
- Avoid staying in areas that are prone to landslides.
- Seek shelter during thunderstorms and lightning.
- Apply mulch at the base of crops to protect soil and roots.
- Refrain from working in fields during thunderstorms and lightning.
- Delay the planting of rice, jute, maize, and vegetables; if already planted, prevent waterlogging and cover the seeded area with natural mulch materials like straw and farm residues.

- Due to ongoing flood activities it is advised to take precautions during sowing of Sali rice seeds in flood-prone areas. Sowing should be done in upland areas free from water stagnation and having sufficient slope for draining out the excess rainwater and seeds not submerged after sowing.
- In order to avoid physical damage in orchard trees due to gusty wind during the monsoon season prevailing over the region; it is advised to provide mechanical support to the crops like banana, citrus, papaya etc. may be advocated. One should ensure proper drainage to drain out excess water from the crop fields. As above normal was anticipated during the ensuing days, harvesting of matured vegetables and fruits from standing crops may be carried out.
- Water stagnation in coconut due to flash flood conditions may lead to occurrence of Ganoderma disease. To prevent, water accumulation is advised to avoid orchards. On the occurrence of symptoms, go for isolating the plant by digging a 60 cm deep, 30 cm wide trench, 1 m away from the trunk.

West Bengal

205 mm (-48% deficit) rainfall was received over Gangetic West Bengal and rainfall received over Sub Himalayan West Bengal was 1203 mm (63% large excess) from 01 June to 14 July 2024. The extended range weather forecast (rainfall) for the next two weeks (12 July - 18 July 2024 and 19 July - 25 July 2024) is normal rainfall over Gangetic West Bengal and Sub-Himalayan West Bengal during week 1 and below normal rainfall over Gangetic West Bengal and normal over Sub-Himalayan West Bengal during week 2.

- In New Alluvial Zone, collect seeds of good quality, high-yielding variety of rice and start land preparation for *kharif* rice seedbed; for 2 katha of seedbed, 200 kg of decomposed dung manure, 1-1.5 kg of Urea, 2 kg of Single Super Phosphate (SSP) and 500g of Muriate of Potash (MoP) should be applied at the time of mud bed application and 650g Urea per katha should be applied one week before planting.
- Chilli crop is in fruit formation stage; to control the thrips and mite attack, spray Spiromesifen 22.9% SC @ 0.5 ml/litre of water.
- Apply Dimethoate 30 % EC and Buprofezin 25% SC @1-2 ml/litre (2-4 ml per tree) to control mango mealy bug and mango hopper.

Jharkhand

180 mm (-45% deficit) rainfall received over Jharkhand from 01 June to 14 July 2024. The extended range weather forecast (rainfall) provided for the next two weeks (12 July - 18 July 2024 and 19 July - 25 July 2024) over Jharkhand is normal for week 1 and below normal for week 2.

- In view of upcoming rains, if enough water collects in the lower lands and if paddy seedlings are 20 days old, then it is advised to begin transplanting them. Farmers are recommended to transplant the seedlings of long-duration varieties first. Farmers are advised to cultivate finger millet either by direct sowing or by transplanting. Farmers are recommended to raise the seedling in nursery bed and keep the nursery bed above the ground level. 3.5 -4.0 kg of seeds are required for the cultivation in one acre.
- Taking advantage of the rains in the coming days, it is advised to sow fodder crops with recommended varieties like Napier *IGFRI-6, 10*, Berseem- *Bardan*, Maize- *African Tall*, Cowpea- *Bandel Cowpea-1, 2*, etc.

- In Western Plateau Zone, there will be cloudy condition in the coming days and possibility of rainfall. Undertake transplanting of 20-25 days old paddy seedlings in prepared fields with a spacing of 20 x 10 (R x P) cm. Before transplanting, apply Nitrogen @ 100 kg, Phosphorus @ 60 kg, Potash @ 40 kg and Zinc sulphate @ 25 kg per hectare.

Uttar Pradesh

218 mm (23% excess) rainfall received over Western Uttar Pradesh and rainfall received over Eastern Uttar Pradesh was 255 mm (9% excess) from 01 June to 14 July 2024. The extended range weather forecast (rainfall) for the next two weeks (12 July - 18 July 2024 and 19 July - 25 July 2024) is normal over Eastern Uttar Pradesh and below normal over Western Uttar Pradesh during week 1 and below normal rainfall over Western Uttar Pradesh and normal over Eastern Uttar Pradesh for week 2.

Western Uttar Pradesh

- As per extended range forecast of below normal rainfall during this week and above normal rainfall during second week, farmers are advised for transplantation of rice. If farmers nursery is not raised then SRI method/direct sowing is advised for short duration rice with recommended varieties viz., *Govind, Manhar, Narandra-80, NDR-97, Pant-12, IR-50, Ashwani, Shakat -4 and Baranideep*.
- This is the optimum for sesame sowing with recommended varieties like Shekhar, Pragti, Type-78, Tarun, RT-351 and RT-346. Drain excess rainwater from the field.
- Make proper arrangements for drainage of excess water in pigeon pea crop. Complete the sowing of groundnut. At the time of sowing, 20 kg of nitrogen, 50-60 kg phosphate and 100 kg of gypsum per hectare may be placed in the trash at 2-3 cm from the seeds.

Eastern Uttar Pradesh

- Due to the forecast of normal rainfall during this week, farmers are advised to transplant 20-25 days old paddy seedlings in prepared fields with a spacing of 20 x 10 (R x P) cm. Nitrogen 100 kg/ha, Phosphorus 60 kg/ha, Potash 40 kg/ha and zinc sulphate 25 kg/ ha should be used before transplanting. Farmers are also advised to make bund for conserving rain water in the field. Bund should be higher and wider so that more rain water can be conserved in the field.
- Prepare field for sowing of kharif onion, lobiya, spinach, amaranthus and ladyfinger. Start sowing of rainy season Cucurbits. Plant mango, aonla, ber, bel, etc. saplings in prepared pits.

Himachal Pradesh

136 mm (-33% deficit) rainfall was received over Himachal Pradesh from 01 June to 14 July 2024. The extended range weather forecast (rainfall) provided for the next two weeks (12 July - 18 July 2024 and 19 July - 25 July 2024) over Himachal Pradesh is below normal for week 1 and week 2.

- As enough rains occurred during the past week as per MRF. Farmers are advised to transplant paddy. Transplant paddy seedlings 20 cm apart in lines with 15 cm plant-to-plant distance. Keep one or two seedlings/hill. Gap filling of the seedlings should be done after 5 to 10 days after transplanting.
- As heavy rains are expected in the next five days as per MRF, it is advised to ensure proper drainage in the fields and sowing of soybeans recommended after the rains. Varieties

Recommended: Shivalik, Green Soya, Palam Soya, Him Soya or Him Palam Green Soya)
Recommended Seed rate: 75-100 kg/ha.

- It is the time for nursery raising of mid-season cauliflower varieties like *Palam Uphar*, *Improved Japanese*, *Pusa Deepali*, and *Megha (F1)*. Prepare nursery beds of appropriate sizes having 3 m in length, 1 m in width and 10-15 cm raised above the ground surface

Jammu

104 mm (-29% deficit) rainfall was received over Jammu from 01 June to 14 July 2024. The extended range weather forecast (rainfall) provided for the next two weeks (12 July - 18 July 2024 and 19 July - 25 July 2024) over Jammu is below normal for week 1 and week 2.

- Farmers are advised to strengthen the bunds of paddy fields for *insitu* storage of rain water and utilize the same for puddling. Transplanting of 20-30 days old rice seedlings having 4-6 leaves (varieties: *IET-1410*, *PC-19*, *SJR-5*, *Jaya*, *Basmati 370* and *Ranbir Basmati*) is recommended after receipt of rain.
- Do not allow excess rainwater to stagnate in fields. Farmers may complete late sowing of maize crop (var. Vijay composite, Mansar Composite and JMC-3) at *vattar* condition of soil with a seed rate of 20-25 kg/ha by 20 July. Treat the seed with Bavistin @ 3g/kg of seed to manage soil-borne diseases.
- Farmers may go for sowing of Mash (var: *Pant U-19*, *Uttara*) & Moong (var: *SML-668*) after receipt of rain at optimum soil moisture conditions in rainfed areas. Inoculate the seed with rhizobium culture before sowing to get a better yield. If sown, drain out excess rainwater from the field.

Punjab

85 mm (-31% deficit) rainfall was received over Punjab from 01 June to 14 July 2024. The extended range weather forecast (rainfall) provided for the next two weeks (12 July - 18 July 2024 and 19 July - 25 July 2024) over Punjab is normal for week 1 and below normal for week 2.

- Cotton crops must not be allowed to suffer from water stress during the flowering stages. To control the attack of pink bollworms in cotton, use stick/delta traps with at least 10 micro litre of gossypure and place it at 15 cm above the crop canopy.
- Under prevailing weather condition, farmers are advised to sow the rainfed groundnut crop with the advent of monsoon in the last week of June or in the first week of July. Complete the sowing as early as possible.

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