



राष्ट्रीय कृषि मौसम परामर्शी सेवाएं बुलेटिन
National Agromet Advisory Services Bulletin

जारी करने की तिथि/ **Date of issue: 09 July 2024**

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

वैधता/ **Validity: 05 July - 18 July 2024**

जारीकर्ता/ **Issued by**

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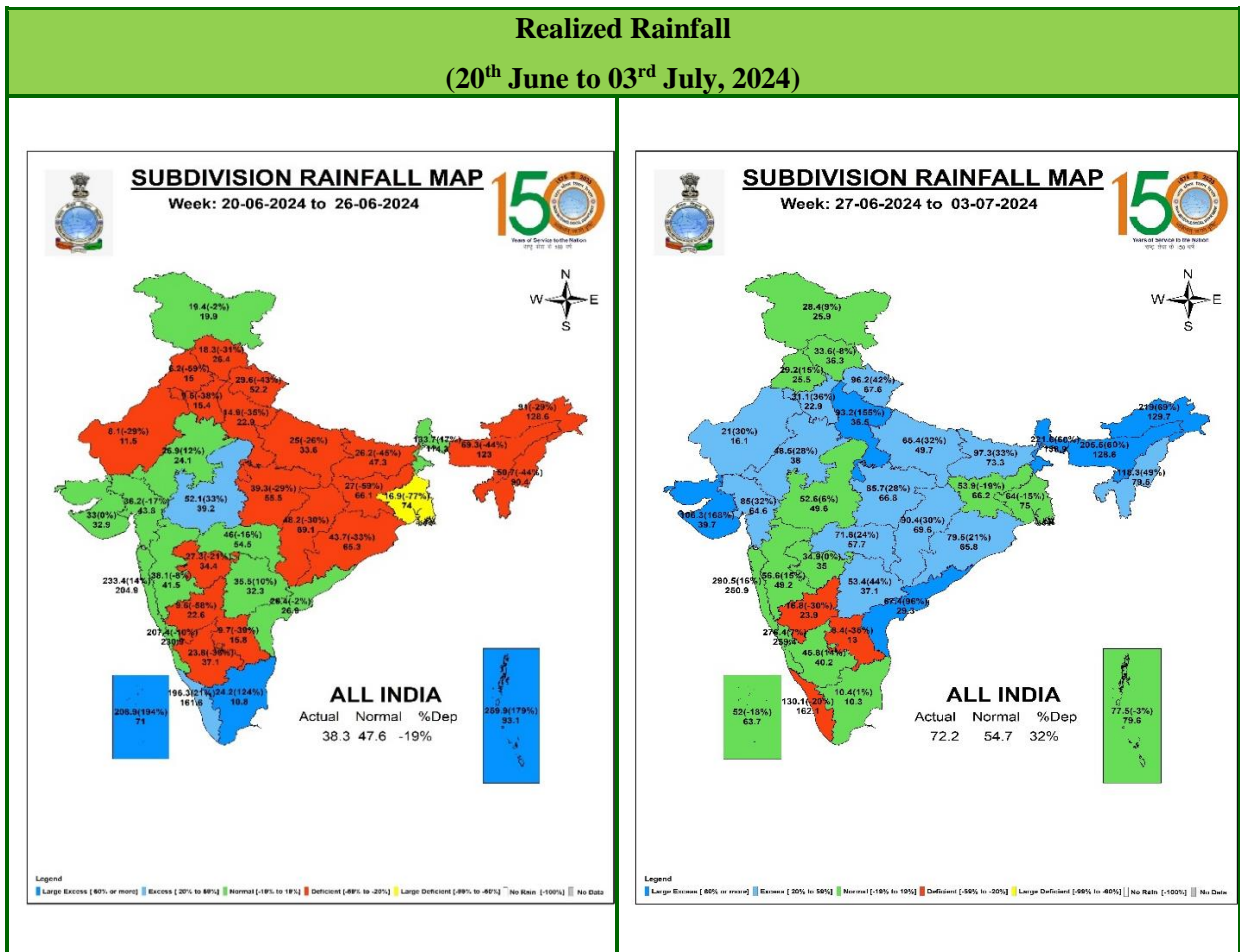
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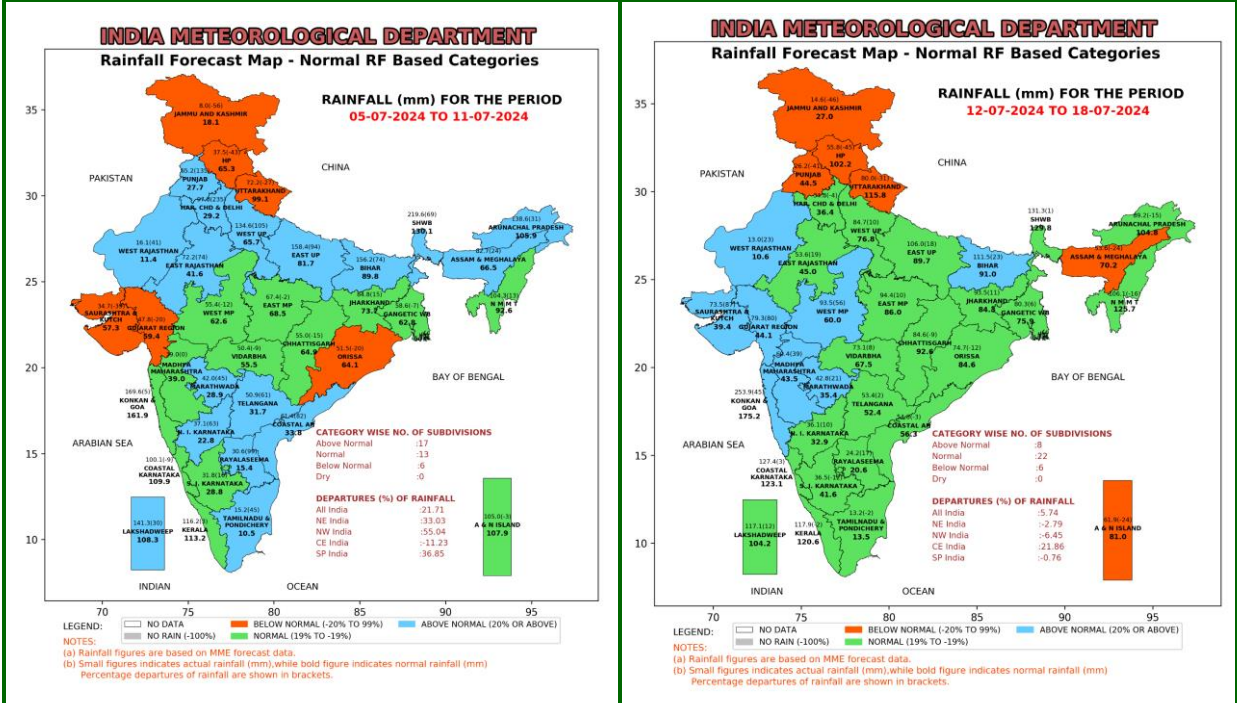
Realized Rainfall and Extended Range Forecast



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

Extended Range Forecast System

Rainfall forecast maps for the next 2 weeks (IC- 3rd July, 2024) (05th to 18th July, 2024)



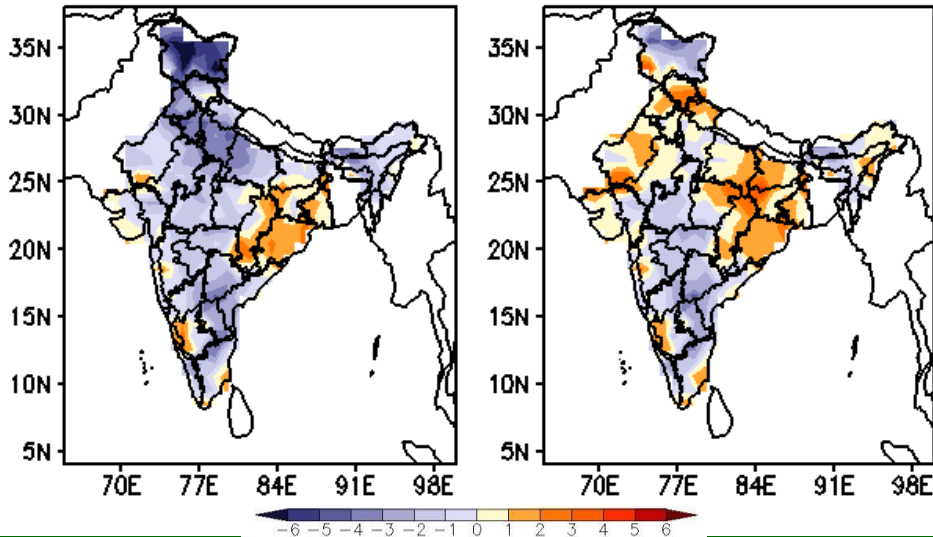
- **Week 1 (05.07.2024 to 11.07.2024):** Rainfall is likely to be above normal over Northeast India, parts of East & Northwest India and northern parts of West Coast. However, it is likely to be below normal over Central India, Jammu & Kashmir and Himachal Pradesh.
- **Week 2 (12.07.2024 to 18.07.2024):** Rainfall is likely to be above normal over Central part of India, some parts of Northwest & East India and northern parts of west coast. However, it is likely to be below normal over Northeast India, Kerala, Odisha, Chhattisgarh, Jammu & Kashmir, Himachal Pradesh, Uttarakhand and Punjab.

**Maximum and Minimum temperature anomaly ($^{\circ}$ C) forecast
for the next 2 weeks (IC- 3rd July, 2024)
(05th to 18th July, 2024)**

MME forecast Tmax anomaly (Deg C)

(Week1: 05Jul–11Jul)

(Week2: 12Jul–18Jul)



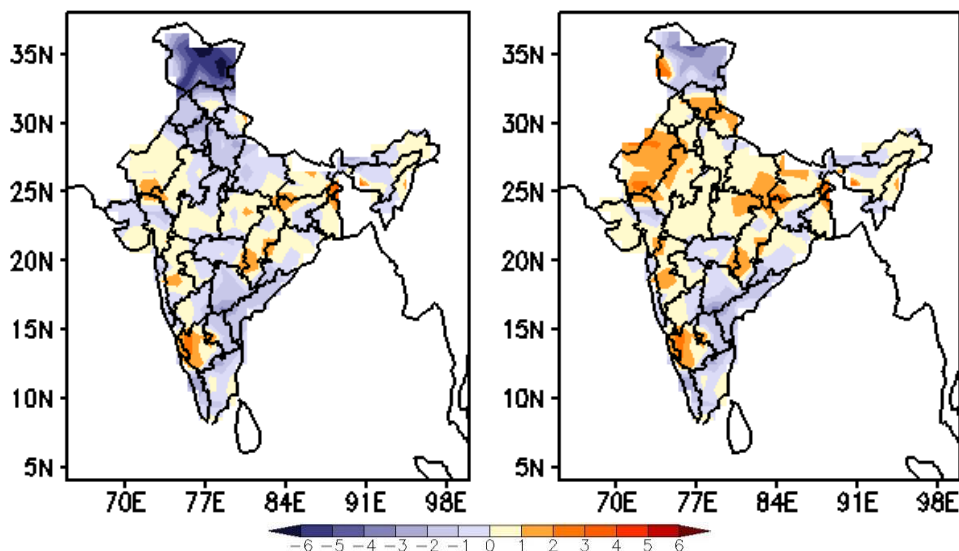
Maximum Temperature (Tmax)

- **Week 1 (05.07.2024 to 11.07.2024):** Maximum temperature is likely to be above normal over East India and Karnataka.
- **Week 2 (12.07.2024 to 18.07.2024):** Maximum temperature is likely to be above normal over Northwest India, East India and Karnataka.

MME forecast Tmin anomaly (Deg C)

(Week1: 05Jul–11Jul)

(Week2: 12Jul–18Jul)



Minimum Temperature (Tmin)

- **Week 1 (05.07.2024 to 11.07.2024):** Minimum temperature likely to be above normal over parts of Northwest, Central and East India.
- **Week 2 (12.07.2024 to 18.07.2024):** Minimum temperature likely to be above normal over Northwest, Central & East India and also over Madhya Maharashtra and Karnataka.

Strategic Agricultural Planning based on rainfall till 18 July 2024

Agromet Advisories

Kerala

589 mm (-25% deficit) rainfall was received over Kerala from 01 June to 07 July 2024. The extended range weather forecast (rainfall) for the next two weeks (05 July - 11 July 2024 and 12 July - 18 July 2024) is normal rainfall for week 1 and 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 period.
- During rainy season to control foot rot disease in black pepper, 2.5 g of Copper Oxychloride per one litre of water can be sprayed and drenched in the basin as a prophylactic measure.
- 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

121 mm (92% large excess) rainfall was received over Tamil Nadu from 01 June to 07 July 2024. The extended range weather forecast (rainfall) for the next two weeks (05 July - 11 July 2024 and 12 July - 18 July 2024) is above normal rainfall for week 1 and normal week 2.

- Considering the high wind speed with light rainfall it is advised to provide propping to the sugarcane by tying 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

198 mm (4% excess) rainfall over South Interior Karnataka; 1089 mm (-1% deficit) rainfall over Coastal Karnataka and 155 mm (23% excess) rainfall over North Interior Karnataka was received from 01 June to 07 July 2024. The extended range weather forecast (rainfall) provided for the next two weeks (05 July - 11 July 2024 and 12 July - 18 July 2024) is normal over South Interior Karnataka and Coastal Karnataka and above normal over North Interior Karnataka for week 1 and; normal over North, South Karnataka and Coastal Karnataka during week 2.

South Interior Karnataka

- Wherever, the long-duration crops like redgram, and castor has 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.

Andhra Pradesh

177 mm (101% large excess) rainfall was received over Rayalaseema, and 183 mm (29% excess) was received over Coastal Andhra from 01 June to 07 July 2024. The extended range weather forecast (rainfall) provided for the next two weeks (05 July - 11 July 2024 and 12 July - 18 July 2024) is above normal over Rayalaseema and Coastal Andhra Pradesh for week 1 and; normal over Rayalaseema and Coastal Andhra Pradesh for week 2.

- 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.
- Present weather conditions are congenial for sucking pest incidence in groundnut crop. Install sticky traps (10 nos/acre). If the pest infestation is more spraying of imidacloprid 17.8 SL @ 0.3 ml/l of water or Isocycloseram 9.2% DC @ 1 ml/ litre water is recommended.

Maharashtra

237 mm (15% excess) rainfall over Madhya Maharashtra, 192 mm (13% excess) Marathwada, 938 mm (-1% deficit) Konkan, and 233 mm (-5% deficit) rainfall over Vidarbha was recorded from 01 June to 07 July 2024. The extended range weather forecast (rainfall) for the next two weeks (05 July - 11 July 2024 and 12 July - 18 July 2024) is normal rainfall over Konkan, Vidarbha, and Madhya Maharashtra and above normal over Marathwada for week 1; and above normal over Konkan, Madhya Maharashtra, Marathwada and normal over Vidarbha for week 2, respectively.

Parbhani

- Plantation of the new orchard of sapota is advised where rainfall was received. For the plantation of orchards purchase plants only from government-registered nurseries.
- Under prevailing weather conditions, land preparation for adsali sugarcane (varieties such as Co86032, Co-M- 0265, VSI-8005) is advised.
- Due to the increased humidity and low temperature during monsoon, dampness in animal sheds. Persistent dampness is likely to increase the infestation of diseases in animals to take preventive vaccination for animals as per the advice of veterinary doctors.

Vidarbha

- Sowing of soybean crop is recommended only after receipt of adequate rainfall with enough ongoing moisture for germination in the soil. Recommended soybean varieties are *JS 93-05*, *JS 95-60*, *JS 20-29*, *JS 20-34*, *MAUS-71*, *MAUS-158*.
- For cultivation of *kharif* cotton recommended deshi varieties include *AKA-5*, *AKA-7* and *AKA-8* with seed rate of 12 to 15 kg /ha and spacing of 60 x 15 cm. American improved varieties include *AKH-081* (60 x 15 cm with seed rate 15 to 20 kg/ha), *AKH-09-5* (Suvarna Shubhra), *PKV Rajat* and *AKH 8828* (60 x 30 cm with seed rate 10 to 12 kg/ha). Cotton deshi hybrid *PKVDH-1*, *PKV-Suvarna* is recommended with seed rate @ 3.0 to 3.5 kg/ha and spaced at 60 x 45 cm

Konkan

- because of heavy to very heavy rainfall at isolated places during the next 5 days, drain out excess water from rice nurseries, turmeric, groundnut, orchards, and vegetables, and maintain a 5 cm water level in transplanted rice fields.
- Under prevailing weather conditions, it is advised to provide mechanical support to newly planted mango, cashew, coconut, and areca nut. Provide staking and support to cucurbitaceous vegetables.

Gujarat

178 mm (-13% deficit) rainfall was received over Gujarat from 01 June to 07 July 2024. The extended range weather forecast (rainfall) provided for the next two weeks (05 July - 11 July 2024 and 12 July - 18 July 2024) over Gujarat is below normal for week 1 and above normal for week 2.

- Drain out excess rain water 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.
- Select greengram varieties like *GM-4*, *GAM-5*, *GM-7*, *GM-8*, *Meha* etc., Black gram: Gujarat Black gram-1, 2, T-9 etc. Sowing should be done after enough rainfall is received up to 15th July.
- 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

203 mm (-22% deficit) rainfall was received over Chhattisgarh from 01 June to 07 July 2024. The extended range weather forecast (rainfall) provided for the next two weeks (05 July - 11 July 2024 and 12 July - 18 July 2024) over Chhattisgarh is normal for week 1 and week 2.

- Farmers are advised to transplant seedlings of rainy-season vegetable crops. Drainage channels in the orchards are advised to rectify and keep in well maintenance condition.
- For control of whitefly infestation in sugarcane, spray Fenitrothion 50 EC @ 2 litres per hectare at 15 days intervals.
- Transplant the papaya plant in the field from polybag. Use the appropriate varieties for papaya viz. *Pusa Nanha* and *Pusa Dwarf*

Assam

760 mm (23% excess) rainfall received over Assam from 01 June to 07 July 2024. The extended range weather forecast (rainfall) provided for the next two weeks (05 July - 11 July 2024 and 12 July - 18 July 2024) over Assam is above normal for week 1 and below normal for week 2.

- Flood conditions prevailing in the state due forecast of above normal rainfall, Brahmaputra river has been flowing above 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

162 mm (-51% deficit) rainfall was received over Gangetic West Bengal and rainfall received over Sub Himalayan West Bengal was 1044 mm (74% large excess) from 01 June to 07 July 2024. The extended range weather forecast (rainfall) for the next two weeks (05 July - 11 July 2024 and 12 July - 18 July 2024) is normal rainfall over Gangetic West Bengal and above normal rainfall over Sub-Himalayan West Bengal during week 1 and normal rainfall over Gangetic West Bengal and Sub-Himalayan West Bengal during week 2.

- Prevailing cloudy sky and moderate to heavy rainfall are expected during this week. Maintain proper drainage channels in the fields (jute, rice, okra and chilli) to avoid water stagnation. Farmers are advised not to fertilize, or spray pesticides and herbicides on rainy days. Irrigation systems should be well maintained and remove excess water in the field.
- Rainwater harvesting is advised to practice for jute retting. Farmers may cut the jute for retting.

- As light to moderate rainfall is forecast, undertake planting of fruit saplings in the priorly prepared pits.

Bihar

229 mm (-5% deficit) rainfall received over Bihar from 01 June to 07 July 2024. The extended range weather forecast (rainfall) provided for the next two weeks (05 July - 11 July 2024 and 12 July - 18 July 2024) over Bihar is above normal for week 1 and week 2.

- In the previous two days, there was widespread rainfall across north Bihar, with medium to heavy rainfall being recorded in the districts of *terai* region. Taking advantage of good rainfall, farmers are advised to start the transplanting operation of paddy seedlings in the low land areas. Where seedlings are ready and irrigation facilities are available, farmers can start rice transplanting particularly in the medium and low land areas.
- Taking advantage of rainfall in the forecasted period, sowing of sesamum is advised in the upland areas. *Krishna, Kaakee safed, Kalika, Pragati* varieties are recommended for sowing in North Bihar. Application of 60 quintals compost, 20 kg Nitrogen, 20 kg Phosphorus, and 20 kg Potash per hectare is advised during land preparation. Seed rate @ kg/ha is suggested. Before sowing, seed should be treated with Thiram @ 2 g/kg of seed.
- Prevailing weather is favorable for planting of new orchards. Before planting, pits should be treated with Chlorpyrifos 20 EC @ 5 ml/litre of water to prevent termite and white grub infestation.

Jharkhand

135 mm (-47% deficit) rainfall received over Jharkhand from 01 June to 07 July 2024. The extended range weather forecast (rainfall) provided for the next two weeks (05 July - 11 July 2024 and 12 July - 18 July 2024) over Jharkhand is normal for week 1 and week 2.

- After receipt of enough rainfall, farmers are advised to carry out sowing of dhaincha seeds @ 12 kg/acre prior to the transplanting of paddy seedlings.
- Farmers are advised to cultivate finger millet either by direct sowing or by transplanting. Farmers are recommended to raise the seedlings in the 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.
- Sow the improved seed of black gram such as Birsa urad – 1, WBU-109, and Birsa urad – 2 at the distance of 10 cm (plant to plant) and 30 cm (row to row). 12 kg of seeds is required for the cultivation in one acre. Seed must be treated with Rhizobium culture before sowing.

Uttar Pradesh

180 mm (51% excess) rainfall received over Western Uttar Pradesh and rainfall received over Eastern Uttar Pradesh was 203 mm (27% excess) from 01 June to 07 July 2024. The extended range weather forecast (rainfall) for the next two weeks (05 July - 11 July 2024 and 12 July - 18 July 2024) is above normal over Eastern Uttar Pradesh and Western Uttar Pradesh during week 1 and normal rainfall over Western Uttar Pradesh and Eastern Uttar Pradesh for week 2.

Western Uttar Pradesh

- As per the extended range forecast above normal rainfall during this week, farmers are advised to take benefit of the 130.0 mm rainfall that occurred during the past week, transplant the rice seedlings of 10 to 15 cm high or 2-3 leaves available seedlings. If paddy nursery is still not raised then direct sowing is advised with short-duration paddy variety.

- As per the extended range forecast above normal rainfall during 05 -18 July in central and western parts of UP. Farmers are advised to drain out excess water in the maize field. Sowing of maize with hybrid varieties such as *Azad hybrid-1*, *Azad hybrid-2*, *DEKC-7074 Ganga-11*, *HQPM-5*, *Sartaj*, *MS maize-2* and *Sankul varieties Prabhat*, *Azad uttam*, *Pragati*, *Gaurav*, *Pro-316 (4640)* *Bio-9681* and *Y-1402-K* after 10th July at optimum moisture condition is recommended
- Due to the forecast of above-normal rainfall during this week farmers are advised to stop irrigation and pick up mature fruits on standing crops. Nursery for kharif season advised sowing.
- Under prevailing weather conditions, sowing of brinjal, chili, early cauliflower and lady finger, cowpea, pumpkin, bottle gourd, ridge gourd, bitter gourd, cucumber etc. may be postponed. Harvest matured pumpkin, bottle gourd, bitter gourd, cucumber, watermelon, muskmelon, etc., and send them to market.

Himachal Pradesh

123 mm (-15% deficit) rainfall was received over Himachal Pradesh from 01 June to 07 July 2024. The extended range weather forecast (rainfall) provided for the next two weeks (05 July - 11 July 2024 and 12 July - 18 July 2024) over Himachal Pradesh is below normal for week 1 and week 2.

- As enough rains occurred during the past week and rainfall forecast during this 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 next five days as per MRF, it is advised to ensure proper drainage in the fields sowing of soybean 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

88 mm (-16% deficit) rainfall was received over Jammu from 01 June to 07 July 2024. The extended range weather forecast (rainfall) provided for the next two weeks (05 July - 11 July 2024 and 12 July - 18 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.
- Don't allow transplanted seedlings (especially basmati) to submerge in rainwater for more than 2 days, it will cause yellowing of plants and eventually death after 10-12 days. Drain out excess rainwater from fields maximum after 2 days.
- 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.

Uttarakhand

277 mm (7% excess) rainfall was received over Uttarakhand from 01 June to 07 July 2024. The extended range weather forecast (rainfall) provided for the next two weeks (05 July - 11 July 2024 and 12 July - 18 July 2024) over Uttarakhand is below normal for week 1 and week 2.

- Farmers are advised to continue the sowing of kharif crops i.e. finger millets, maize, soybean and other pulse crops. Harvest mature vegetables at regular intervals. i.e. tomato, capsicum, cucumber, beans, okra, etc. Undertake transplanting of pumpkin and chili.
- Heavy rain is likely to occur at isolated places from 5th to 7th July, 2024. Farmers are advised to make proper drainage channels to avoid stagnation of water in maize, finger millets, kidney beans, okra, tomato, brinjal, capsicum, chilli, cauliflower and French beans. Avoid irrigation and any kind of chemical spray in maize.
- Harvest mature tomato fruits timely. Avoid water logging condition. Install yellow card and light trap to minimize pest population. In polyhouse, apply Neem oil @ 5 ml/litre of water if pest observed.
- Hoeing, weeding, and gap filling are advised in finger millet (sowing/seedling stage) and barnyard millet (Seedling/vegetative). Maintain proper drainage in crop fields. Thinning and gap filling should be done in early sown crops to maintain plant population.

Punjab

74 mm (-9% deficit) rainfall was received over Punjab from 01 June to 07 July 2024. The extended range weather forecast (rainfall) provided for the next two weeks (05 July - 11 July 2024 and 12 July - 18 July 2024) over Punjab is above normal for week 1 and below normal for week 2.

- Due to the forecast of above-normal rainfall, farmers are also advised to avoid irrigating fields not to spray any chemicals on the crops, and to remove excess water from the fields, if needed. Arhar can be successfully grown on raised beds by using wheat bed planter in medium to heavy textured soils. Raised bed sowing not only saves irrigation water but also saves the crop from the adverse effect of heavy rainfall.
- 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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