



राष्ट्रीय कृषि मौसम परामर्शी सेवाएं बुलेटिन National Agromet Advisory Services Bulletin

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India Meteorological Department (IMD) पृथ्वी प्रणाली विज्ञान संगठन

Earth System Science Organization



Realized Rainfall and Extended Range Forecast

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



- Week 1 (19.07.2024 to 25.07.2024): Rainfall is likely to be above normal over Central parts of India and adjoining South India. However, it is likely to be below normal over Northwest India, Northeast India and parts of East India.
- Week 2 (26.07.2024 to 01.08.2024): Rainfall is likely to be above normal over many parts of Central India, some parts of Northwest India & East India and along west coast. However, it is likely to be below normal over Jammu & Kashmir, Himachal Pradesh, Northeast India and many parts of South India.



Telangana and regions along East Coast.

Strategic Agricultural Planning based on rainfall till 01 August 2024

Agromet Advisories

Kerala

973 mm (-12% deficit) rainfall was received over Kerala from 01 June to 21 July 2024. The extended range weather forecast (rainfall) for the next two weeks (19 July - 25 July 2024 and 26 July - 01 August 2024) is above 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 periods.
- Due to the forecast of above-normal rainfall during this week, postpone irrigation, intercultural operations and application of plant protection measures and fertilizers to the standing crops.
- due to the forecast of above-normal rainfall during this week it is advised to improve the drainage facility. Do not allow water stagnation in the planted pits. Provide bunds around the pits to prevent the collection of runoff water in the pits. Fertilizer application may be postponed during heavy rainfall period

Tamil Nadu

170 mm (78% large excess) rainfall was received over Tamil Nadu from 01 June to 21 July 2024. The extended range weather forecast (rainfall) for the next two weeks (19 July - 25 July 2024 and 26 July - 01 August 2024) is normal rainfall for week 1 and week 2.

- Considering the high wind speed @ 10-32 kmph, provide propping to the banana of more than five months old to prevent it from lodging. Provide drainage facility and avoid fertilizer application.
- As there is a forecast of light to moderate rainfall during this week. Farmers are advised to irrigate the crop based on the local weather.
- Prevailing weather favours for stem borer infestation in paddy which is vegetative stage. To control spraying of Azadirachtin 3.03 % @ 1 litre/ha is recommended.
- As strong winds coupled with rainfall are expected staking and drainage facilities are advised to provide to young rubber, banana, and fruit trees

Karnataka

366 mm (29% excess) rainfall over South Interior Karnataka; 2032 mm (26% excess) rainfall over Coastal Karnataka and 216 mm (19% excess) rainfall over North Interior Karnataka was received from 01 June to 21 July 2024. The extended range weather forecast (rainfall) provided for the next two weeks (19 July - 25 July 2024 and 26 July - 01 August 2024) is above normal over South Interior Karnataka, Coastal Karnataka and North Interior Karnataka for week 1 and; below normal over North Karnataka, normal over South Karnataka and above 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).

North Interior Karnataka

- Irrigation schedule may be postponed depending to the rainfall condition to horticultural crops.
- Under prevailing weather conditions, it is advised to continue the sowing of green gram, red gram, black gram, pigeon pea, soybean, groundnut, ragi, bajra and cotton. Undertake sowing of niger, horse gram, finger millet and castor.
- For sucking pest thrips and aphids in chilli, spray Dimethoate 30 EC @ 1.7 ml or Methyl parathion 50 EC @ 1 ml or Acephate 75 SP @ 1 g per litre of water.

Andhra Pradesh

223 mm (70% large excess) rainfall was received over Rayalaseema, and 339 mm (59% excess) was received over Coastal Andhra from 01 June to 21 July 2024. The extended range weather forecast (rainfall) provided for the next two weeks (19 July - 25 July 2024 and 26 July - 01 August 2024) is above normal over Rayalaseema and Coastal Andhra Pradesh for week 1 and; below normal for week 2.

• June first week sown groundnut crop is at the vegetative stage, farmers are advised to take intercultivation and followed by hand weeding at 20 and 40 DAS.

- Because of the rains the weed problem may increase in rice. To control, it is advised to apply Pyrazosulfuron-ethyl @ 80-100 g/acre at 4-7 DAS mixed in sand @ 20-25 kg/acre.
- The present weather conditions are highly favourable for thrips and mite attacks in chilli. To control, it is advised to spray Fipronil @ 2 ml or Spinosad @ 0.25 ml or Dimethoate @ 2 ml/ litre of water against thrips.

Odisha

246 mm (-29% excess) rainfall was received over Odisha from 01 June to 21 July 2024. The extended range weather forecast (rainfall) provided for the next two weeks (19 July - 25 July 2024 and 26 July - 01 August 2024) is above normal over Odisha for week 1 and; normal for week 2.

- July and August are the optimum for mango planting. Grow Baiganpalli, Totapuri, Bombay green, Suvarnarekha, Neelam, Himsagar, Langra, Dusheri, Amrapalli, Mallika, Ratna, Ramkella, Rummani, Sindhu, Alphanso and Keshar, etc.
- In low land, go for transplanting of 21 days rice seedlings in the main field. Keep rain water in the main rice field by bunding for timely puddling and transplanting.
- Cover the vegetable nursery with polythene to protect it from heavy rain and make drainage arrangements.
- In heavy rainfall areas, stop the sowing of seeds and top dressing of fertilisers or herbicides for time being.

Maharashtra

372 mm (21% excess) rainfall over Madhya Maharashtra, 309 mm (28% excess) Marathwada, 1952 mm (38% excess) Konkan, and 455 mm (19% excess) rainfall over Vidarbha was recorded from 01 June to 21 July 2024. The extended range weather forecast (rainfall) for the next two weeks (19 July - 25 July 2024 and 26 July - 01 August 2024) is above normal rainfall over Konkan, Vidarbha, Madhya Maharashtra and Marathwada for week 1; and above normal over Konkan, normal over Madhya Maharashtra and Vidarbha, below normal over Marathwada for week 2, respectively.

Parbhani

- Due to the forecast of above-normal rainfall in isolated places of Marathwada region, it is advised to make arrangements to drain out excess water from *kharif* crops, orchards and vegetables.
- Undertake intercultural operations in cotton, pigeon pea, black gram and green gram at *wapsa* conditions during clear weather.
- Due to the present cloudy and humid weather, sap-sucking pests may be observed in 15 days cotton, for its control spray 5% neem ark during clear weather.

Vidarbha

- In view of heavy/heavy to very heavy rainfall at isolated places, make arrangements for draining out excess water from black gram, green gram, soybean, pigeon pea, cotton, vegetables and orchards and drain out excess water from waterlogged areas of standing crop field.
- Drain out excess water from waterlogged areas of standing crop field. In early sown cotton

fields, undertake inter culture (hoeing/weeding) during clear weather for management of weeds and improved soil aeration.

• If symptoms of para wilt are observed in cotton, undertake drenching with Carbendazim 50% WP @ 20 g or Copper oxychloride 50% WP @ 25 g + Urea 100 g in 10 litres of water during clear weather.

Madhya Maharashtra

- Due to the forecast of above-normal rainfall at isolated places, it is advised to make arrangements to drain out excess water from rice nurseries, orchards and vegetables, continue transplanting of rice, and provide mechanical support to banana plantations.
- Due to the present cloudy and humid weather, sap-sucking pests may be observed in 15 days cotton, for its control spray 5% neem ark during clear weather.

Konkan

• As there is forecast for heavy to very heavy rainfall make arrangement for drain out excess water from rice nursery and maintain optimum water level of 2.5 to 5 cm in transplanted rice field. Due to warnings of extremely heavy rainfall at isolated places postpone the transplanting operation in those regions for two to three days

Gujarat

262 mm (-25% deficit) rainfall was received over Gujarat from 01 June to 21 July 2024. The extended range weather forecast (rainfall) provided for the next two weeks (19 July - 25 July 2024 and 26 July - 01 August 2024) over Gujarat is above normal for week 1 and week 2.

- Interculturing and weeding operations at *wapsa* condition in cotton sown crop is advised. Carry out thinning operation where two or more extra plants germinated and undertake gap-filling operation in the sown cotton field.
- Drain out excess rainwater from the vegetable crop field of cowpea, cluster beans, pointed gourd, little gourd, elephant foot, yam etc. Application of fertilizers and spraying of agrochemicals according to rainfall, wind speed and wind direction forecasting.
- Use (75% Shaded intensity) shade net to cover the vegetable crops nursery area to prevent insect entry. To control damping off disease in vegetable nurseries, drench with Metalaxyl M 31.8 % ES @ 2 g/litre of water. Make a facility for draining excess water from the nursery.

Chhattisgarh

376 mm (-14% deficit) rainfall was received over Chhattisgarh from 01 June to 21 July 2024. The extended range weather forecast (rainfall) provided for the next two weeks (19 July - 25 July 2024 and 26 July - 01 August 2024) over Chhattisgarh is above normal for week 1 and week 2.

- If rice transplanting has not taken place yet, it is advised for sowing of short to mediumduration varieties of rice like *Vikram TCR*, *Mahamaya*, *MTU-1010* etc. should be sown in lines (direct Seeded Rice). The seed rate is advised higher than recommended by 15-20 per cent.
- Mulching is advised in ginger, turmeric, elephant yam and taro root crops and managed the drainage channel before the rainy season.
- Farmers are advised to arrange seeds of progressive varieties of rice, maize, soybean, groundnut, sesame, pigeon pea, black gram and green gram etc.

• For direct sowing arrange the improved varieties of vegetable crops and prepare the fields for sowing them as per the plan.

Assam

929 mm (6% excess) rainfall received over Assam from 01 June to 21 July 2024. The extended range weather forecast (rainfall) provided for the next two weeks (19 July - 25 July 2024 and 26 July - 01 August 2024) over Assam is below normal for week 1 and normal for week 2.

- Continue transplanting of Sali rice seedlings in the main field in the areas not affected by flood. Take the 25-30 days-old seedlings for transplanting and 2-3 numbers of seedlings transplanted per hill.
- In flood-affected areas of Assam, transplanting of Sali rice may be done at a convenient time particularly soon after flood recession. Moisture stress is a common feature after flood recession in flood-affected areas. Seedlings become ready for transplanting at a height of 15 cm with 3 to 4 leaves.
- 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

243 mm (-49% deficit) rainfall was received over Gangetic West Bengal and rainfall received over Sub Himalayan West Bengal was 1280 mm (47% excess) from 01 June to 21 July 2024. The extended range weather forecast (rainfall) for the next two weeks (19 July - 25 July 2024 and 26 July - 01 August 2024) is normal rainfall over Gangetic West Bengal and below normal over Sub-Himalayan West Bengal during week 1 and week 2.

- Due to rains in past week and forecast of normal rainfall during this week, farmers are advised for practicing water harvesting for jute retting. Farmers may cut the jute for retting. Use Crijaf-Sona powder for better jute retting.
- Normal rainfall is forecasted in this week. Farmers are advised not to give extra irrigation paddy. Farmers are advised to transplant the kharif rice within this week.
- Treat the brinjal seeds with Carbendazim @ 2g/kg or Pseudomonas fluorescence@ 10 g/kg of seed to protect against bacterial wilt and enhance germination rates

Jharkhand

202 mm (-50% deficit) rainfall received over Jharkhand from 01 June to 21 July 2024. The extended range weather forecast (rainfall) provided for the next two weeks (19 July - 25 July 2024 and 26 July - 01 August 2024) over Jharkhand is below normal for week 1 and normal for week 2.

• After rain, when there is proper water accumulation in the low land fields, start the paddy transplanting with proper seeding. If enough water has not been accumulated in the fields for transplanting, then collect water by flowing water from the upper lands and start the

work of planting when enough water is accumulated. If germination is not done uniformly in the already sown crop, then sow the seeds again in the gaps or if the number of plants has increased in one place, then uproot it and plant it in the gaps.

- Taking advantage of the rains in the coming days, farmers are advised to sow fodder crops for cattle by selecting any one of the following: *Napier IGFRI-6, 10, Berseem- Bardan, Maize- African Tall, Cowpea- Bandel Cowpea-1, 2*, etc. Take Napier-1200 slips, Berseem 12 kg, Maize 12 kg and Cowpea 16 kg per acre.
- Due to extended period of cloudy and rainy weather there may be chances of infestation of bacterial stalk rot disease in maize, especially at seedling to vegetative stage. To control it is advised to apply Copper oxychloride-based chemicals on dry days. Further, the addition of 30 kg MOP per acre in 2 splits reduces the severity of infestation.

Uttar Pradesh

241 mm (2% excess) rainfall received over Western Uttar Pradesh and rainfall received over Eastern Uttar Pradesh was 271 mm (-11% deficit) from 01 June to 21 July 2024. The extended range weather forecast (rainfall) for the next two weeks (19 July - 25 July 2024 and 26 July - 01 August 2024) is below normal over Eastern Uttar Pradesh and normal over Western Uttar Pradesh during week 1 and above normal rainfall over Western Uttar Pradesh and normal over Eastern Uttar Pradesh for week 2.

Western Uttar Pradesh

- As per the extended range forecast of below-normal rainfall during this week and abovenormal rainfall during the second week, farmers are advised to 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.*
- As per extended range forecast of normal rainfall during this week and above normal rainfall during second week, farmers are advised for farmers are advised to sowing of short duration maize hybrid varieties like *Vivak Shankar, Makka-27, Shakti-1, Pro-303, KH-9051, MM-113, X-1123* and composite *varieties Kanchan, Gaurav, Surya, Pragti, Naveen, Shweta and Novjot* with 18-20 kg/ha treated seed. Sowing should be done at proper moisture.
- If sowing of groundnut has been done before 3 weeks, apply 100 kg of gypsum per hectare after weeding and do light hoeing.

Eastern Uttar Pradesh

- If 20-25 days old seedlings are ready, then transplant 2-3 paddy seedlings per hill and 40 to 50 hills per square meter at a depth of 3-4 cm.
- Do top dressing of urea for the first time in transplanted rice after 15 to 21 days. Weeds may be removed in direct sown rice sown in the first week of August.

Himachal Pradesh

156 mm (-41% deficit) rainfall was received over Himachal Pradesh from 01 June to 21 July 2024. The extended range weather forecast (rainfall) provided for the next two weeks (19 July - 25 July 2024 and 26 July - 01 August 2024) over Himachal Pradesh is below normal for week 1 and week 2.

- Due to the forecast of below-normal rainfall, farmers are advised to increase the amount of potash it helps in minimizing the losses due to the moisture stress during dry spells. In rainfed areas, the use of mulches is beneficial for the conservation of moisture in the soil. Farmers are advised to make proper arrangement for storing rainwater at one portion in the field. This water can be used for irrigation in the crops at suitable time during dry spell.
- In high hilly intercultural operations and urea dose to peas, turnip, carrot, palak etc advised. Transplanting of cabbage, cauliflower broccoli and exotic vegetables is advised to complete.
- 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
- Ensure proper drainage in the fields as rains are expected in the next five days. In already sown interculture /halod advised. The first top dressing of nitrogen should also be done at this stage (65-85 kg urea/ha) of clear sky day. Hoeing and weeding should be done.

Jammu

126 mm (-34% deficit) rainfall was received over Jammu from 01 June to 21 July 2024. The extended range weather forecast (rainfall) provided for the next two weeks (19 July - 25 July 2024 and 26 July - 01 August 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

93 mm (-43% deficit) rainfall was received over Punjab from 01 June to 21 July 2024. The extended range weather forecast (rainfall) provided for the next two weeks (19 July - 25 July 2024 and 26 July - 01 August 2024) over Punjab is below normal for week 1 and normal for week 2.

- As per MRF, rainfall is expected in coming days, therefore, it is advised to drain out the excess water from the cotton fields as cotton crop is highly sensitive to standing water during early growth stages. Eradicate the weeds like kanghibuti, peelibuti, puthkanda etc growing on cotton field bunds, wastelands, road side and irrigation channels.
- Under prevailing weather condition, undertake transplanting of rice in irrigated areas only. Complete transplanting of basmati varieties.
- Irrigate tomato, brinjal, pepper, capsicum and vine vegetables at proper intervals and do

not water more than necessary.

• In citrus, pear, litchi and mango apply light irrigations at regular intervals. Whitewash mixture can be applied on the main trunks of the fruit trees to protect them from intense heat.

Haryana

95 mm (-39% deficit) rainfall was received over Haryana from 01 June to 21 July 2024. The extended range weather forecast (rainfall) provided for the next two weeks (19 July - 25 July 2024 and 26 July - 01 August 2024) over Haryana is below normal for week 1 and week 2.

- Due to the possibility of light to moderate rain along with moderate wind during the period, keep vigil before doing agricultural operations in the field. The possibility of rain in the region withheld the sowing of kharif crops.
- After favourable weather conditions irrigate and spray chemicals in cotton.
- Undertake sowing of pigeon peas, and pearl millet as per weather conditions. Adequate moisture should be maintained for optimum germination of seeds.

Rajasthan

214 mm (-1% deficit) rainfall was received over Rajasthan from 01 June to 21 July 2024. The extended range weather forecast (rainfall) provided for the next two weeks (19 July - 25 July 2024 and 26 July - 01 August 2024) over Rajasthan is above normal for week 1 and week 2.

- Sowing of soybeans must be done when there is sufficient moisture available in the field.
- Maintain proper moisture in the rice nursery.
- Farmers are advised to start sowing of cucurbits in rainy season

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