



# 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 Sub-Himalayan West Bengal & Sikkim, Marathwada, North Interior Karnataka, Rayalaseema and Tamil Nadu Puducherry & Karaikal.
- Normal or above normal rainfall occurred in either of the two weeks over Jammu & Kashmir and Ladakh (UTs), Assam & Meghalaya, Arunachal Pradesh, Nagaland Manipur Mizoram & Tripura (NMMT), Konkan & Goa, Madhya Maharashtra, Vidarbha, Telangana, Coastal Andhra Pradesh & Yanam, Coastal Karnataka, South Interior Karnataka and Andaman & Nicobar Islands.
- Below Normal rainfall/no rain occurred in both the weeks over rest of the States & UTs.



- Week 1 (21.06.2024 to 27.06.2024): Rainfall is likely to be above normal over parts of Central India, East India and South Peninsula. However, it is likely to be below normal over northwest India.
- Week 2 (28.06.2024 to 04.07.2024): Rainfall is likely to be above normal over most parts of the country except Jammu & Kashmir, Himachal Pradesh, Madhya Pradesh and Chhattisgarh.



#### Strategic Agricultural Planning based on rainfall till 04 July 2024

## **Agromet Advisories**

## Kerala

278 mm (-43% deficit) rainfall was received over Kerala from 01 June to 23 June 2024. The extended range weather forecast (rainfall) for the next two weeks (15 - 27 June 2024 and 28 June - 04 July 2024) is above normal rainfall for week 1 and normal for week 2.

- Due to the forecast of above-normal rainfall, it is advised to improve the drainage facility by providing proper drainage channels, and postpone fertilizer application. Provide mechanical support to standing banana crops as there is a chance of high wind speed.
- To control thrips in *virippu* rice, it is advised to spray 2 g of Thiamethoxam in 10 litres of water.
- During the rainy season, there is a chance of downy mildew attack in cucurbitaceous vegetables. If it reaches more than 10%, spraying 2.5 g Mancozeb/litre of water under the leaves is advised.
- In pepper, regulate the shade in the pepper gardens. At the beginning of the rainy season the first dose of fertilizer can be applied to pepper plants. A basin of 10 to 15 cm depth and 30 to 40 cm. diameter should be taken. 10 kg of manure or compost can be applied per plant and add some soil.

#### Karnataka

107 mm (-4% deficit) rainfall over South Interior Karnataka; 422 mm (-32% deficit) rainfall over Coastal Karnataka and 124 mm (53% excess) rainfall over North Interior Karnataka was received from 01 June to 23 June 2024. The extended range weather forecast (rainfall) provided for the next two weeks (15 - 27 June 2024 and 28 June - 04 July 2024) is normal over North Interior Karnataka and above normal over South Interior Karnataka and Coastal Karnataka for week 1 and; above normal over North, South Karnataka and normal over Costal Karnataka during week 2.

## South Interior Karnataka

• Farmers are advised to take up ploughing or passing the cultivator in the areas where rainfall is received and it should be taken across the slope this improves infiltration and conservation of rainwater and avoids soil erosion.

Due to the good amount of rainfall, the following crops are suggested for sowing.

## **Under mono-cropping the long-duration crops:**

- Redgram: *TTB-7*, *BRG-1*, *2*, *4* & 5
- Castor: DCS-9 (Jyothi), DCH-177 & 32
- 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
- Redgram seeds are advised to treat with Carbendazim or Thiram @ 2 g/kg of seed 24 hours before sowing (or) with talc formulation of *Trichoderma viride* @ 4g/kg of seed (or) *Pseudomonas fluorescens* @ 10 g/kg seed and Rhizobium @ 10 g/kg of seed.

## North Interior Karnataka

- As already light heavy rainfall was received in most of the districts and light to moderate rainfall was forecasted during this week, as soon as the condition permits depending on the soil type *take* up kharif sowing of recommended maize varieties *EH-434042 (Arjun) or GH-0727 (Srusti), Bajra: ICMV-221 or ICTP-8203.*
- The irrigation schedule may be postponed depending to the rainfall conditions to horticultural crops.
- To manage fungal diseases, take up spraying of 1 per cent Bordeaux mixture 2-3 days after pruning.
- To manage Bacterial blight disease in pomegranate, it is advised to spray the crop with Streptomycin sulphate 0.5 g. + Copper Oxychloride 2 g dissolved in one litre of water

## Andhra Pradesh

156 mm (162% large excess) rainfall was received over Rayalaseema, and 102 mm (24% excess) was received over Coastal Andhra from 01 June to 23 June 2024. The extended range weather forecast (rainfall) provided for the next two weeks (15 - 27 June 2024 and 28 June - 04 July 2024) is normal over Rayalaseema and Coastal Andhra Pradesh for week 1 and; above normal over Rayalaseema and Coastal Andhra Pradesh for week 2.

- Farmers can take up dry direct seeding with ferticum seed drill or wet direct seeding with drum seeder in paddy instead of transplanting to save water and labour and season. North Coastal Zone of Andhra Pradesh, based on the suitability of their area, farmers can select and procure the seed of high yielding rice varieties *like RGL 2537, BPT 5204, BPT 3291, MTU 1262, MTU 1318, 1061, MTU 1224 and MTU 1064* and be prepared for sowing in *kharif* season
- Farmers are advised to take up sowing of rainfed groundnut only after receipt of cumulative rainfall of 50 mm after the onset of SW monsoon. They are advised to avoid too early sowing immediately after the first rains in June and late sowing after 1st week of August to avoid the risk of yield reduction.
- Select the pigeon pea varieties according to soil type are; For light soils: Medium duration varieties viz., *PRG-176*, *PRG-158* and *ICPL* 84031. Medium to heavy soil type: Medium duration varieties (*LRG-41*, *ICPL* 85063, *ICPL-87119*, *BSMR-786* and *LRG-52*).
- Present weather conditions are favourable for bacterial rhizome rot in bananas. Soil drenching of 1.0 % bleaching powder or 0.2 % Emissan in 100 ml water as drenching after 24 hrs of irrigation at 15-day intervals is advised

## Maharashtra

119 mm (9% excess) rainfall over Madhya Maharashtra, 139 mm (40% excess) Marathwada, 432 mm (-9% deficit) Konkan and 95 mm (-16% deficit) rainfall over Vidarbha was recorded from 01 June to 23 June 2024. The extended range weather forecast (rainfall) for the next two weeks (15 - 27 June 2024 and 28 June - 04 July 2024) is normal rainfall over Konkan, above normal over

Madhya Maharashtra, Marathwada and Vidarbha for week 1; and above normal over Konkan, Madhya Maharashtra, Vidarbha and Marathwada for week 2, respectively.

## Parbhani

- Continue sowing of *kharif* crops like cotton, pigeon pea, black gram, green gram, soybean, sorghum, and pearl millet in the blocks where sufficient rainfall has been received.
- Farmers are advised to undertake planting of custard apples where sufficient rainfall has been received.
- Due to cloudy conditions and observed rainfall in the last few days, take a preventive spray of Sulphur @ 20 g/10 litres of water in the grape vineyard during clear weather to control downy mildew.

## Vidarbha

- In view of thunderstorms accompanied by lightning, gusty winds and heavy rainfall at isolated places of the region during the next 2-3 days it is advised to make arrangements for drainage from vegetable nurseries and orchards and also provide mechanical support to newly planted orchards and vegetables.
- Farmers are advised to continue preparatory tillage operations for *kharif* crops like cotton, pigeon pea, black gram, green gram etc. during clear weather.
- Continue nursery sowing of vegetables like chilli, tomato and brinjal during clear weather.

## Madhya Maharashtra

- Under prevailing weather condition, it is advised to continue sowing of kharif crops like pigeon pea, black gram, green gram and soybean at *wapsa* condition.
- Field preparation is advised for raising nursery plants of onion, brinjal, chilli, and tomato on raised beds. After sowing seeds, it is advised to provide light irrigation with a rose can and later by flooding.

## Gujarat

24 mm (-67% large deficit) rainfall was received over Gujarat from 01 June to 23 June 2024. The extended range weather forecast (rainfall) provided for the next two weeks (15 - 27 June 2024 and 28 June - 04 July 2024) over Gujarat is above normal for week 1 and week 2.

- For cultivation of kharif paddy select the recommended varieties like, early maturing varieties (Direct seeded): *GR-2, 3, 4, IR-2, GR-12 (Sardar), NVSR-2*, Early maturing variety (Transplanting): *Mahisagar* Medium late maturing varieties: *GR-11, 13, Jaya, Gurjari, IR-22, GR-15, Dandi, GAR-13* and Late maturing varieties: *Masuri, GR-101, 103, 104, 108 and Narmada*.
- Propping is advised in Banana plants with the help of bamboo by placing them against the stems on leaning side at bunch development stage.
- Farmers are advised to start sowing of chilli, tomato and brinjal seeds in raised bed or portrays with cocopeat for raising of seedlings for *kharif* transplanting. Use (75% Shaded intensity) shade net to cover the nursery area to prevent insect entry.

## Chhattisgarh

76 mm (-36% deficit) rainfall was received over Chhattisgarh from 01 June to 23 June 2024. The extended range weather forecast (rainfall) provided for the next two weeks (15 - 27 June 2024 and 28 June - 04 July 2024) over Chhattisgarh is normal for week 1 and week 2.

- Farmers are advised to arrange seeds of progressive varieties of rice crops, such as *Karma Mahsuri, Mahamaya, Danteshwari, Samleshwari, Indira Sugandhit Dhan-1* etc. for sowing in *kharif* season.
- Under prevailing weather conditions, farmers are advised to prepare the field for the nursery cultivation of rainy season vegetable crops like okra, brinjal, chilli, cucumber, bottle gourd, radish, cauliflower etc. and arrange the seeds.
- There may be a possibility of early shoot borer in the newly planted sugarcane, apply Cartap Hydrochloride 4% granular @15 to 20 kg. Sprinkle per hectare and then irrigate.
- Mulching is advised in ginger and turmeric crops and managing the drainage channel before the rainy season.

#### Assam

485 mm (35% excess) rainfall received over Assam from 01 June to 23 June 2024. The extended range weather forecast (rainfall) provided for the next two weeks (15 - 27 June 2024 and 28 June - 04 July 2024) over Assam is normal for week 1 and above normal for week 2.

- The grasses like hybrid napier, seteria, guinea and para can be successfully grown under Assam conditions. As sufficient rainfall received in the last week, farmers may plant the rooted slips of these grasses in upland areas to meet the fodder needs of livestock during the coming kharif season.
- To avoid physical damage in orchard trees due to gusty wind during this rainy season; mechanical support to crops like banana, citrus, papaya etc. may be advocated
- Since there are possibilities of getting rainfall in the in this week and next week, sowing of pre-germinated seeds of Sali rice may be done in upland areas free from water stagnation and having sufficient slope for draining out the excess rain water.
- To control pests like fruit fly, Epilachna beetle, aphid, red pumpkin beetle and black pumpkin beetle in vegetable crops like sponge gourd, spine gourd, ridge gourd, cowpea etc. and against borers in brinjal, okra etc. is advised to spray Emamectin Benzoate 5% SG (@ 5 g per 10 litres of water or Lambda Cyhalothrin 5 EC (@ 3-5 ml per 10 litres of water during fair weather condition.

## West Bengal

49 mm (-72% large deficit) rainfall was received over Gangetic West Bengal and rainfall received over Sub Himalayan West Bengal was 561 mm (69% large excess) from 01 June to 23 June 2024. The extended range weather forecast (rainfall) for the next two weeks (15 - 27 June 2024 and 28 June - 04 July 2024) is normal rainfall over Gangetic West Bengal and below normal rainfall over Sub-Himalayan West Bengal during week 1 and normal rainfall over Gangetic West Bengal and above normal rainfall over Sub-Himalayan West Bengal during west Bengal during week 2.

• As light to moderate rainfall is predicted, farmers are advised to maintain proper bunding to use/harvest the rain water.

- To control thrips, fruit borer (*Helicoverpa armigera*), aphid in chilli, it is advised to apply Acephate 95% SG @ 750 g/ha during early morning accessing cloud condition
- Drainage channels in the Jute field are advised to clear well in advance to avoid water logging conditions. Farmers are advised to insure their jute crop to prevent any losses.

## Jharkhand

45 mm (-63% large deficit) rainfall received over Jharkhand from 01 June to 23 June 2024. The extended range weather forecast (rainfall) provided for the next two weeks (15 - 27 June 2024 and 28 June - 04 July 2024) over Jharkhand is normal for week 1 and week 2.

- Start field preparation for timely sown direct seeded paddy (June 15 to June 30). Use 2 tons of FYM per acre in the fields. Apply NPK fertilizer at the rate of 24:12:8 kg per acre. Apply urea at the rate of 52 kg per acre, SSP at 75 kg per acre and potash at 15 kg per acre, but give urea in 3 parts at different stages of the crop. Prepare land for paddy and arrange seeds of paddy crop. The improved varieties for rice crops are for upland *Birsa Vikas Dhan 109, 110, 111, Birsa Dhan 108 and Vandana*; For medium land–*Sahbhagi dhan, IR-36, 64, Lalat, Naveen, Birasmati*; For low land *Rajshree, Swarna, Sambha Mahsuris.*
- Farmers are advised for preparation of nursery for early cauliflower, tomato, chilli and brinjal. It is also advised to use shed nets, which helps in reducing vector disease and thus produce healthy seedlings

## Bihar

41 mm (-60% large deficit) rainfall received over Bihar from 01 June to 23 June 2024. The extended range weather forecast (rainfall) provided for the next two weeks (15 - 27 June 2024 and 28 June - 04 July 2024) over Bihar is above normal for week 1 and week 2.

- Weather conditions has now become favorable for sowing of direct seeded early and medium duration rice varieties. Farmers can go for direct seeding of rice in the fields where waters are stagnating. In the lands which are almost dry, they can use seed drill machine or direct seeding method for sowing rice.
- Due to the forecast of normal rainfall during this week, farmers are advised do not spray pesticides/insecticides on the crop and spray only when the weather is dry.
- To protect the summer vegetables from leaf feeder/fruit borer pest, spraying of Dimethoate 30 EC @1-1.5 ml/litre of water is advised in clear days
- Farmers are advised for prepare of nursery for early cauliflower, tomato, chilli and brinjal. It is also advised to use shed nets, which help in reducing vector disease and thus produce healthy seedlings. Nursery should be cover by net at the height of 6.5 feet for protection against sunlight.

## Odisha

89 mm (-39% deficit) rainfall was received over Odisha from 01 June to 23 June 2024. The extended range weather forecast (rainfall) provided for the next two weeks (15 - 27 June 2024 and 28 June - 04 July 2024) over Odisha is above normal for week 1 and normal for week 2.

• Due to the forecast of above-normal rainfall and an increase in temperature, farmers are advised for land preparation and nursery sowing of *kharif* rice

#### Varietal selection

- Upland rice varieties (Matures in 100-120 days) like *Khandagiri, Sahabhagi Dhan, DRR-*42, *DRR-44, DRR-46, Mandakini, Naveen, GB-1, Bina-11, MTU-1010, Satyabhama, Swarna Shreya* etc. can be cultivated.
- Medium land rice varieties (Matures in 120-140 days) like *MTU 1156*, *MTU 1153*, *CR Dhan 310*, *RGL 2538*, *Lalat*, *Improved Lalat*, *Manaswini*, *MTU-1001*, *Sampada*, *Gitanjali*, *Nua acharmati* etc can be cultivated.
- Low land rice varieties (Matures >140 days) like *Pratikshya, Swarna, Swarna Sub-1, RGL-2537, MTU-1075, Mrinalini, Hashanta, Rani Dhan, CR 1009, CR 1009 Sub-1, DRR 50, Pooja, MTU-1064, CR-1018, Sarala, Durga, Pradhan Dhan, Nua Kalajeera, Nua chinikamini, CR Sungadhi Dhan-907* etc can be cultivated.
- As there is a chance of occurrence of rainfall is expected in upcoming days, farmers are advised to take proper care while conducting spraying operations and start nursery bed preparation and sowing of *kharif* vegetable crops.

## Uttar Pradesh

11 mm (-75% large deficit) rainfall received over Western Uttar Pradesh and rainfall received over Eastern Uttar Pradesh was 17 mm (-72% large deficit) from 01 June to 23 June 2024. The extended range weather forecast (rainfall) for the next two weeks (15 - 27 June 2024 and 28 June - 04 July 2024) is normal over Eastern Uttar Pradesh and below normal western Uttar Pradesh during week 1 and above normal rainfall over both subdivision for week 2.

Western Uttar Pradesh

- Under prevailing weather conditions sowing of short-duration rice varieties such as *N*-118, *N80*, *N*-1, *N*-2, *N*-97, *Pant dhan-12*, *Barani deep*, *IR-50*, *Ratna*, *HUR-3022 and scented rice such as T-3*, *Pusa basmati-1*, *Pusa sungandh-4 and 5 and Malviya sugandh-4-3 and Malviya basmati 10-9* etc are advised. Nursery should be raised during the 3<sup>rd</sup> week of June.
- Suitable time for sowing of lady finger, cowpea, pumpkin, gourd, taroi, bitter gourd, cucumber etc and transplanting of brinjal, chilli, early cauliflower
- Protect the animals/birds from heat waves and keep their room cool by using a cooler. Jute bag may be used as curtains in the door and windows and it should be wetted at noon and evening.
- To protect brinjal and chilli crops (fruiting stage) from food borer farmers are advised to spray Azadirachtin 1.0% EC (1000 ppm).

## Eastern Uttar Pradesh

- Keeping normal and timely monsoon forecasts in view, farmers are advised to start preparation of paddy nurseries. Seed should be procured from a certified agency. Before sowing the nursery soil should be drenched with Captan 75% WP @2 g/litre water
- Keeping in view of the temperature forecast, farmers are advised to harvest of mature vegetable crop like brinjal in morning and evening and keep them in sheds
- Go for vaccination against Foot and Mouth disease and other bacterial diseases in the bovine population (cattle, goat, buffalo etc.).

## **Himachal Pradesh**

27 mm (-57% deficit) rainfall was received over Himachal Pradesh from 01 June to 23 June 2024. The extended range weather forecast (rainfall) provided for the next two weeks (15 - 27 June 2024 and 28 June - 04 July 2024) over Himachal Pradesh is below normal for both week 1 and week 2.

- Rains expected in scattered places of HP. If no rains occurred, it is advised to apply light irrigation in morning and evening according to need which other-wise lead to poor pollination and thus drop in yield of the crop.
- Farmers are also advised to go in for the sowing of direct seeded crops in areas using a seed rate of 60 kg / h ensuring proper soil moisture.
- Varieties Recommended:
- Transplanting: HPR 2143, HPR 1068, Palam Lal Dhan 1 and Him Palam Dhan 2, Kasturi basmati
- > Direct Seeding: Sukara Dhan 1, Him Palam Dhan 1, Him Palam Lal Dhan 1
- > Hybrids: Arize 6129, Arize AZ 6508, Arize Swift
- Maize sowing is advised after ensuring soil moisture or after rains. Varieties recommended for grain purpose are Girija Composite, *Bajaura makka, HQPM 1, PMZ 4, Palam Sankar Makka 2* while African tall variety can be used for green fodder purpose.

#### Jammu

34 mm (-33% deficit) rainfall was received over Jammu from 01 June to 23 June 2024. The extended range weather forecast (rainfall) provided for the next two weeks (15 - 27 June 2024 and 28 June - 04 July 2024) over Jammu is below normal for week 1 and week 2.

- Nursery raising of Basmati 370 and Ranbir Basmati is recommended. Give irrigation to nursery daily as per requirement due to high temperature and hence evaporation rate. Irrigation is recommended during evening hours. Cover the nursery with grass/straw to prevent moisture loss.
- Maintain a regular supply of water to germinating rice seedlings for their proper growth and saving them from intense heat. Apply water preferably during morning and late evening hours. If required, apply urea to rice seedlings in the nursery, as and when the standing water of irrigation disappears. Farmers may go for transplanting of early transplanted rice varieties.
- Provide need-based irrigation to dhaincha crop to increase its vegetative biomass which is raised for *in-situ*/ex-situ green manuring of paddy fields. Incorporation of dhaincha may be taken up before the flowering stage in the rice field.
- Install pheromone traps @ 2/kanal along with spray of neem oil @ 3 ml/litre control fruit borer in vegetables (tomato/cucurbits) which are the fruiting stage.

## Uttarakhand

37 mm (-68% large deficit) rainfall was received over Uttarakhand from 01 June to 23 June 2024. The extended range weather forecast (rainfall) provided for the next two weeks (15 - 27 June 2024 and 28 June - 04 July 2024) over Uttarakhand is below normal for week 1 and normal for week 2.

• Transplanting of seedlings of cucurbits is advised. Install pheromone trap/light trap/yellow sticky in vegetable fields to minimize pest infestation.

- Farmers are advised to continue sowing of *kharif* crops and other pulse crops. Intercultural operations are advised in early sown crops.
- Under prevailing weather condition, it is advised to prepare rice nurseries under irrigated conditions in the valley and low hills of the state.

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