



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 Jammu & Kashmir and Ladakh (UTs), Himachal Pradesh, Madhya Pradesh, Chhattisgarh, Madhya Maharashtra, Marathwada, Vidarbha and North Interior Karnataka.
- Normal or above normal rainfall occurred in either of the two weeks over Punjab, Haryana Chandigarh & Delhi, Rajasthan, West Uttar Pradesh, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Nagaland Manipur Mizoram & Tripura (NMMT), Gujarat State, Konkan & Goa, Telangana and Coastal Karnataka.
- Below Normal rainfall/no rain occurred in both the weeks over rest of the States & UTs.



- Week 1 (26.04.2024 to 02.05.2024): Rainfall is likely over Jammu Kashmir, Himachal Pradesh, Uttarakhand, Northeast India, Madhya Maharashtra, West Madhya Pradesh and Kerala.
- Week 2 (03.05.2024 to 09.05.2024): Rainfall is likely over Jammu Kashmir, Himachal Pradesh, Uttarakhand, Northeast India, Kerala and South Karnataka.



• Week 2 (03.05.2024 to 09.05.2024): Minimum temperature is likely to be above normal over Karnataka, Gujarat, Madhya Maharashtra, Tamil Nadu, Coastal Andhra Pradesh & Assam and below normal over the remaining parts of the country.

Strategic Agricultural Planning based on rainfall till 09 May 2024

Agromet Advisories

Uttar Pradesh

22 mm (38% excess) rainfall received over Western Uttar Pradesh and rainfall received over Eastern Uttar Pradesh was 14 mm (8% excess) during 01 March - 28 April 2024. The extended range weather forecast (rainfall) for the next two weeks (26 April - 02 April 2024 and 03 May - 09 May 2024) is below normal over Western Uttar Pradesh and no rainfall over Eastern Uttar Pradesh during week 1 and; below normal over Western Uttar Pradesh and Eastern Uttar Pradesh for week 2.

Western Uttar Pradesh

- Due to forecast of below-normal rainfall this week, farmers are advised for light irrigation in maize crops which is at knee-high stage.
- As forecast of below normal rainfall, farmers are advised to irrigate and maintain moisture in green gram and black gram crop (vegetative stage) as per requirement because this is the growth period of green gram and black gram.
- Under prevailing dry weather condition, farmers are advised to provide light irrigation in maize crop which is at knee high stage during evening time and weeding is also advised at proper moisture after weeding 1/4th dose of Urea top dressed at knee high stage.
- To protect brinjal and chilli crop (fruiting stage) from food borer farmers are advised to spray Azadirachtin 1.0% EC (1000 ppm) @2ml/liter water.
- To protect the chickens from heat, arrange curtains, fans and ventilation in the hen house. To reduce the temperature of the hen house, cover the roof of the shed with straw

Eastern Uttar Pradesh

- Due to forecast of no rainfall in this week and heat wave condition, farmers are advised for frequent irrigation in vegetables, nurseries of vegetables, fodder crops and orchards. Farmers are also advised to protect vegetables nurseries and orchards against hot winds by physical barrier.
- Constant monitoring of okra (bhindi) crops against mites is advised. If the population is above ETL then, spraying of Spiromesifen 22.90 % SC @1 ml/litre or Fenazaquin 10 % EC @2 ml/litre of water is advised during a clear sky.
- To control shoot and fruit borer in brinjal and tomato crops, infested fruits and shoots should be collected and buried inside the soil. Installation of pheromone trap @ 2-3 traps per acre is advised for monitoring. If the population increase, spraying of Spinosad 45C @ 0.35 ml or Lambda-cyhalothrin 05 % EC @ 1ml per liter of water is advised.

Himachal Pradesh

192 mm (10% excess) rainfall was received over Himachal Pradesh during 01 March - 28 April 2024. The extended range weather forecast (rainfall) provided for the next two weeks (26 April - 02 April 2024 and 03 May - 09 May 2024) over Himachal Pradesh is above normal for week 1 and; below normal for week 2.

• In view of forecast of above normal rainfall, thunderstorm with lightning, hail and gusty winds is at isolated places over Himachal Pradesh. Farmers are advised to keep the produce in safe place and postpone the sowing of summer vegetables for 2-3 days.

- Pluck the tea leaves (two leaf and a bud) at 8-10 days interval to maintain the quality and productivity.
- Outbreak of armyworm/stem borer is reported in wheat crop (soft to hard dough in mid and high hills) in many parts of the state. For the pest control, spray Chlorpyriphos 20 EC @ 2 ml/litre of water.

Jammu

230 mm (-7% deficit) rainfall was received over Jammu during 01 March - 28 April 2024. The extended range weather forecast (rainfall) provided for the next two weeks (26 April - 02 April 2024 and 03 May - 09 May 2024) over Jammu is above normal for week 1 and; below normal for week 2.

- Due to rainy weather conditions, it is advised to postpone harvesting and threshing of early and normal sown wheat till the weather gets clear. Keep the bundles of harvested crops in stacks and cover them with polythene sheets/tarpaulin. Do not let rainwater stagnate in fields.
- Due to rain in the past week and chances of light rainfall, it is advised to maintain proper drainage in crop fields to avoid water logging and, transplanting of vegetable seedlings may be continued after the weather improves.
- It is the right time to start beekeeping especially for beginners. Artificial feeding of the bee colonies with a sugar: water solution 1:1 ratio is recommended. And, also reduce the entrance of boxes to protect bees from rain.

Rajasthan

7 mm (-22% deficit) rainfall was received over East Rajasthan during 01 March - 28 April 2024. The extended range weather forecast (rainfall) provided for the next two weeks (26 April - 02 April 2024 and 03 May - 09 May 2024) over East Rajasthan is normal for week 1 and; below normal for week 2.

- Summers deep ploughing is advised to open up the field that is required for exposure of insect eggs and pupa and weed seeds towards sunlight.
- Intercultural operations and hand hoeing are advised to control weed infestation and proper pegging.

Haryana

20 mm (-14% deficit) rainfall was received over Haryana during 01 March - 28 April 2024. The extended range weather forecast (rainfall) provided for the next two weeks (26 April - 02 April 2024 and 03 May - 09 May 2024) over Haryana is above normal for week 1 and; below normal for week 2.

- It is the right time for direct sowing of okra and cowpea and cucurbits like muskmelon, cucumber, bitter gourd, bottle gourd, pumpkin, sponge gourd, squashes etc.
- Due to changing weather, farmers are advised to provide 50 grams of iodized salt and 50-100 grams of mineral mixture daily with feed & green fodder to the cattle/animals to keep them healthy.
- Due to the forecast of above rainfall this week, farmers are advised to expose the field to rainfall during this period which will help in the preparation for sowing of cotton crop.

Punjab

28 mm (-22% deficit) rainfall was received over Punjab during 01 March - 28 April 2024. The extended range weather forecast (rainfall) provided for the next two weeks (26 April - 02 April 2024 and 03 May - 09 May 2024) over Punjab is above normal for week 1 and; normal for week 2.

- Farmers are advised to harvest and store the wheat grains at the proper place as there are chances of rainfall in the week.
- Farmers are advised to start sowing of fodder maize, sorghum, bajra, Napier bajra and guinea grass to get early fodder.
- Irrigate the sugarcane crop at 7-12 days intervals for better growth of the crop. Apply paddy straw or rice husk or sugarcane trash @ 20-25 q/acre between the rows of sugarcane to reduce soil temperature and moisture loss.
- For controlling purple blotch in onion which is at the vegetative stage, it is advised to spray Difenoconazole 25 EC@ 100 ml mixed with 100 litres of water then mix it with 500 litres per hectare or Tebuconazole 38.39% w/w SC @1 ml per litre of water as soon as the first symptom of purple blotch appears in the field.

West Bengal

51 mm (-29% deficit) rainfall was received over Gangetic West Bengal and rainfall received over Sub Himalayan West Bengal was 136 mm (-20% deficit) during 01 March - 28 April 2024. The extended range weather forecast (rainfall) for the next two weeks (26 April - 02 April 2024 and 03 May - 09 May 2024) is no rainfall over Gangetic West Bengal and below normal over Sub-Himalayan West Bengal during week 1; and below normal over Sub-Himalayan West Bengal and Gangetic West Bengal for week 2.

- Due to heat wave condition and forecast of no rainfall, farmers are advised to maintain proper soil moisture by using mulches and applying light and frequent irrigation in green gram and various crops during morning and afternoon hours to avoid heat stress. Vegetable fields advised to keep under irrigation.
- Those farmers have sown the jute crop between the last week of March to first week of April (crop age, 3 weeks); apply one light irrigation followed by (after 2-3 days depending on soil moisture condition) because there is no rainfall forecast.
- Mulch material-like residue may be used to conserve moisture and prevent soil from cracking.
- Due to prevailing hot and dry weather condition, farmers are advised to keep the cattles under shade during day time. Electrolyte mixed water is advised to avoid dehydration

Jharkhand

38 mm (16% excess) rainfall was received over Jharkhand during 01 March - 28 April 2024. The extended range weather forecast (rainfall) provided for the next two weeks (26 April - 02 April 2024 and 03 May - 09 May 2024) over Jharkhand is no rainfall for week 1 and; below normal over week 2.

• Due to abnormal rise in temperature and forecast of no rainfall in this week, farmers are advised to irrigate the vegetable crops, field crops and fruit trees.

- Due to heat wave condition prevailing, farmers are advised to cover the vegetables nursery with straw to protect the plants from excessive heat and to conserve moisture.
- Keeping in view the difference in temperature between day and night, farmers are advised to monitor the blast disease in the paddy crop. If the outbreak is observed, then it is advised to spray the solution of Tricyclazole at 0.5 g per litre of water.

Bihar

32 mm (35% large excess) rainfall was received over Bihar during 01 March - 28 April 2024. The extended range weather forecast (rainfall) provided for the next two weeks (26 April - 02 April 2024 and 03 May - 09 May 2024) over Bihar is no rainfall for week 1 and; below normal over week 2.

- Due to the forecast of no rainfall, farmers are advised to harvest and dry wheat and mustard crops.
- Monitoring is advised in tomato crops for infestation of fruit borer insects, installation of bird perches in tomato crops is advised. Also, if the pest population reaches ETL spraying of Lambda-cyhalothrin 05 % EC@0.8ml or Flubendiamide 20 % WG@0.5ml per of water is recommended.
- Monitoring is advised for infestation of red pumpkin beetle in cucurbitaceous crops. If infestation is found, spraying of cyantraniliprole 10.26 % OD@1.5 ml per water is advised.

Odisha

64 mm (22% excess) rainfall received over Odisha during 01 March - 28 April 2024. The extended range weather forecast (rainfall) provided for the next two weeks (26 April - 02 April 2024 and 03 May - 09 May 2024) over Odisha is below normal for week 1 and; week 2.

- Prevailing heat wave conditions is very crucial for fruit growth in Mango orchard (marble stage) and water scarcity at this stage may lead to poor fruit development therefore farmers are advised to maintain moisture by applying irrigation at 10-15 days intervals at early morning or evening hours.
- Due to forecast of below normal rainfall, mulching of leaves around newly planted cashew nut plants is advised to conserve moisture. Irrigate 20 to 25 litres per plant.
- Use a temporary shade net to protect the fruit plants from high temperatures.
- The increasing day temperature may cause bacterial wilt disease in tomatoes and brinjal. To protect, it is advised to spray 1 gram of Streptocycline in 10 litres of water in the root zone.
- Prolonged dry spell followed by rain may increase the infestation of fall armyworms in maize. To control this spray Emamectin benzoate 5% SG @0.4 g or Isocycloseram 18.1% W/W SC @0.6 ml/litres of water.
- Under prevailing dry weather conditions, farmers are advised to drip and sprinkler irrigation practices wherever possible in the event of limited water availability particularly for commercial crops including fruit orchards and widely spaced vegetables. Sprinkler irrigation brings down the heat effect. For row crops alternate rows may be irrigated.
- Due to high variation of temperature between day and night leads to infestation of neck blast disease. To control blast disease spray Hexaconazole 5% SC @ 500 ml/acre or Azoxystrobin 18.2% + Difenoconazole 11.4 % SC @ 500 ml/acre.

Chhattisgarh

45 mm (128% large excess) rainfall received over Chhattisgarh during 01 March - 28 April 2024. The extended range weather forecast (rainfall) provided for the next two weeks (26 April - 02 April 2024 and 03 May - 09 May 2024) over Chhattisgarh is below normal for week 1 and; week 2.

- Due to high minimum and maximum temperatures and below normal soil moisture status cause thermal stress in crops. Farmers are advised to adopt water conservation agronomic techniques and apply light irrigation in *rabi* crops wherever required.
- Due to forecast of below-normal rainfall, farmers are advised to irrigate summer rice (milking stage) as per the need.
- Inter-culture, fertilizer application, and earthing followed by irrigation are advised in sugarcane crops at knee height stage.
- If yellow stem borer is observed in the rice crop, it is advised to spray Cartap Hydrochloride 75 % SG @1gram or Chlorpyriphos 20 % EC @ 1.5 ml per litre of water.

Gujarat

4 mm (268% large excess) rainfall received over Gujarat during 01 March - 28 April 2024. The extended range weather forecast (rainfall) provided for the next two weeks (26 April - 02 April 2024 and 03 May - 09 May 2024) over Gujarat is above normal for week 1 and; below normal for week 2.

- Due to prevailing hot and cloudy weather, monitor the groundnut crop for mite infestation. If an infestation of mite is observed in groundnut, then it is advised to spray Ethion 50 EC 15 ml or Propargite 57% EC @ 10 ml/10 litres of water. Give irrigation at pegging and pod formation stages.
- Farmers are advised to advised to apply mulch of paddy straw/mango leaves in mango orchard and give light irrigation to reduce fruit drop in mango.
- Grow fast growing windbreak like Shevri perennial tree to reduce high wind velocity towards standing banana crop.

Maharashtra

5.5 mm (-37% deficit) rainfall over Madhya Maharashtra; 56 mm (229% large excess) rainfall over Vidarbha; 17 mm (45% excess) rainfall over Marathwada; and 4 mm (normal rainfall) rainfall over Konkan region was recorded during 01 March - 28 April 2024. The extended range weather forecast (rainfall) for the next two weeks (26 April - 02 April 2024 and 03 May - 09 May 2024) is normal over Konkan and above normal over Vidarbha, Madhya Maharashtra and Marathwada for week 1 and no rainfall normal over Konkan and below normal over Vidarbha, Madhya Maharashtra and Marathwada for week 2, respectively.

Konkan

As a forecast of above normal temperature and heat wave conditions is prevailing and during this week:

• Farmers are advised to provide irrigation to newly planted orchards as per requirement.

- Apply straw mulch to reduce evaporation losses in orchards and vegetables.
- Cover the roof of the animal sheds with materials such as paddy straw, dry coconut leaves and make-arrangements to sprinkle water on the roof of the shed during afternoon time.
- As dry condition is likely to prevail, farmers are advised to maintain 7-10 cm water level in summer rice fields.

Parbhani

- As thunderstorm accompanied with lightning and gusty winds and light to moderate rainfall is expected over the region, hail at isolated places is also expected. Farmers are advised to keep harvested turmeric at safer places.
- As per forecast of light to moderate rain at isolated places, harvesting of matured onion, watermelon, muskmelon, grapes, mango and sapota at the earliest is advised and keep harvested produce at safer places.
- Due to gusty wind, thunderstorm, hail and rainfall was observed at isolated places in the Marathwada region. farmers are advised to provide mechanical support to newly planted orchards and vegetables.
- For moisture conservation and maintenance of soil temperature mulching is advised in banana orchards. Irrigation should be done during early in the morning or at evening hours with the help of drip irrigation system.

Vidarbha

- As rainfall is expected only at isolated places, farmers are advised to apply need-based light and frequent irrigation to summer groundnut, sesame, sunflower, green gram, vegetables and orchards.
- Due to the forecast of above-normal rainfall, and thunderstorms accompanied by lightning, farmers are advised to harvest matured vegetables and fruits at the earliest and keep harvested produce at safer places. And, also provide mechanical support to newly planted orchards and vegetables.
- For control of fruit drop in mandarin orange/sweet orange/acid lime spray, it is advised to apply Gibberellic acid @ 1.5 g or NAA @ 1 g + 1 kg urea + Carbendazim 0.1% (100 g) per 100 litres of water.
- For control of leaf miners, thrips, and jassids in groundnut, it is advised to spray Isocycloseram 9.2% W/W Dc @ 1ml/liter of water or Lambda-cyhalothrin 5 EC @ 1.5 ml or Quinalphos 25% @ 1.4 ml per litre of water.

Kerala

50 mm (-62% large deficit) rainfall received over Kerala during 01 March - 28 April 2024. The extended range weather forecast (rainfall) for the next two weeks (26 April - 02 April 2024 and 03 May - 09 May 2024) is below normal for week 1 and; week 2.

Due to forecast of above normal temperature and below normal rainfall, following are immediate steps to be followed to protect people, plants, and birds from the summer heat.

• Drink plenty of clean water from time to time to prevent dehydration. Avoid going out in hot weather to get rid of sunburn while going. Try to use a hat or an umbrella to prevent direct sunlight.

- Since dry and hot weather is prevailing, farmers are advised to be irrigate the crops to ensure adequate soil moisture. Drip irrigation is recommended to reduce water loss to some extent.
- As the hot weather conditions may increase the infestation of thrips, aphids, and whiteflies on the crops, spray at the top and bottom of the leaves with 2% strength neem oil garlic emulsion on every two weeks.
- Since dry weather conditions prevail, irrigate areca nut once in 3-5 days @ 175 litres per palm. Protect the palms from direct sunlight by wrapping the stems with areca sheaths or whitewash the exposed portion.
- Protect the pepper plants from direct sunlight by smothering the basal portions of the vines with dried banana leaves, plated coconut leaves, etc. And, also provide protective irrigations one in every two weeks.

Tamil Nadu

9 mm (-83% large deficit) rainfall received over Kerala during 01 March - 28 April 2024. The extended range weather forecast (rainfall) for the next two weeks (26 April - 02 April 2024 and 03 May - 09 May 2024) is below normal for week 1 and; week 2.

- Due to increased temperature, provide propping to banana more than five months old to prevent them from lodging.
- Due to forecast of below normal rainfall, farmers are advised to irrigate the rice (flowering to panicle initiation stage) and black gram crop (vegetative stage) and apply fertilizer.
- Since continuous dry weather prevailed in some parts of the district is favorable for the early shoot borer attack in sugarcane. Hence, farmers are requested to do irrigation frequently and mulching if rain does not occur.
- Since continuous dry weather prevailed in some parts of the district is favourable for the early shoot borer attack in sugarcane hence farmers are requested to do irrigation frequently and mulching if rain not occur.
- Higher temperature along with higher relative humidity favours the incidence of red spider mites in brinjal (vegetative stage). To manage red spider mite, it is advised to spray wettable sulphur 80 WG @ 40 g per acre or Propargite 57 EC @ 400 ml per acre.

Andhra Pradesh

1.5 mm (-95% large deficit) rainfall was received over Rayalaseema and 12 mm (-67% large deficit) rainfall was received over Coastal Andhra during 01 March - 28 April 2024. The extended range weather forecast (rainfall) provided for the next two weeks (26 April - 02 April 2024 and 03 May - 09 May 2024) is no rainfall over Rayalaseema and below normal rainfall over Costal Andhra Pradesh for week 1 and; below normal over Rayalaseema and Costal Andhra Pradesh for week-2.

- Due to forecast of no rainfall and heat wave condition, farmers are advised to apply light and frequent irrigation to the standing groundnut crop which is at flowering stage (critical stage) also advised to increase the frequency of irrigation at critical growth stages.
- Mulching is advised to various crops like sugarcane, sweet orange, mango, pomegranate with crop residue, straw, and groundnut shell to conserve soil moisture. Irrigate only during the early morning and evening hours.

- Due to heatwave conditions, provide irrigation to various crop like sugarcane, fruit orchards viz., sweet orange, mango, pomegranate, at regular intervals. And, also use drip irrigation wherever facilities are available, to reduce the water loss in high temperatures.
- Prevailing dry weather conditions are congenial for the incidence of dry root rot in sweet orange. To control, farmers are advised to apply light and frequent irrigation and after irrigation soil drenching with Mancozeb @ 3 g/litre (based on age of the plant 10-15 liters of spray fluid) after a week Carbendazim 2 g/litre and use mulching material during summer to prevent water loss through the soil.
- Prevailing dry weather conditions are suitable for the incidence of thrips in chillies. To control go for spraying with Cyantraniliprole 10.26 % OD @1.2ml or Imidacloprid 17.80 % SL@0.5ml per liter of water

Karnataka

15 mm (-72% large deficit) rainfall was received over South Interior Karnataka, 28 mm (-23% deficit) Coastal Karnataka and 26 mm (-13% deficit) over North Interior Karnataka during 01 March - 28 April 2024. The extended range weather forecast (rainfall) provided for the next two weeks (26 April - 02 April 2024 and 03 May - 09 May 2024) is below normal over North Interior Karnataka, Coastal Karnataka and South Interior Karnataka for week 1 and; week 2.

South Interior Karnataka

- Mulching (residual crop residue after harvesting of *rabi* and other crops) and one or two protective irrigation is recommended for mango and other horticultural crops to conserve soil moisture due to high temperatures and dry weather persisting over a long period.
- Mango fruit drop can be controlled by spraying Naphthalene acetic acid (NAA) @ 20 ppm twice at an interval of 15 days during the early stage (peanut stage/marble stage) of the fruit development stage.
- Under prevailing hot and dry weather conditions, farmers are advised for frequent irrigation for standing horticultural crops due to increasing temperatures day by day. Mulching is also advised to conserve soil moisture due to high temperatures and dry weather persisting over a long period.

North Interior Karnataka

- Summer ploughing can be taken up across the slope to incorporate crop residues in the soil, conserve runoff water of pre-monsoon rainfall, and reduce soil erosion.
- To manage bacterial blight disease in lime (fruit development stage), it is advised to spray the crop with 3 g Copper Oxy-chloride or 1 % Bordeaux mixture dissolved in one litre of water or 300 ppm Streptomycin (3 g in 10 liters of water).

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