



राष्ट्रीय कृषि मौसम परामर्शी सेवाएं बुलेटिन
National Agromet Advisory Services Bulletin

जारी करने की तिथि/ **Date of issue: 30 December 2024**

आधारित/ **based on**

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

वैधता/ **Validity: 27 December 2024 – 09 January 2025**

जारीकर्ता/ **Issued by**

अखिल भारतीय समन्वित कृषि-मौसम विज्ञान अनुसंधान परियोजना

AICRP on Agro-Meteorology (AICRPAM)

केंद्रीय बारानी कृषि अनुसंधान संस्थान

Central Research Institute for Dryland Agriculture (CRIDA)

भारतीय कृषि अनुसंधान परिषद

Indian Council of Agricultural Research (ICAR)

और

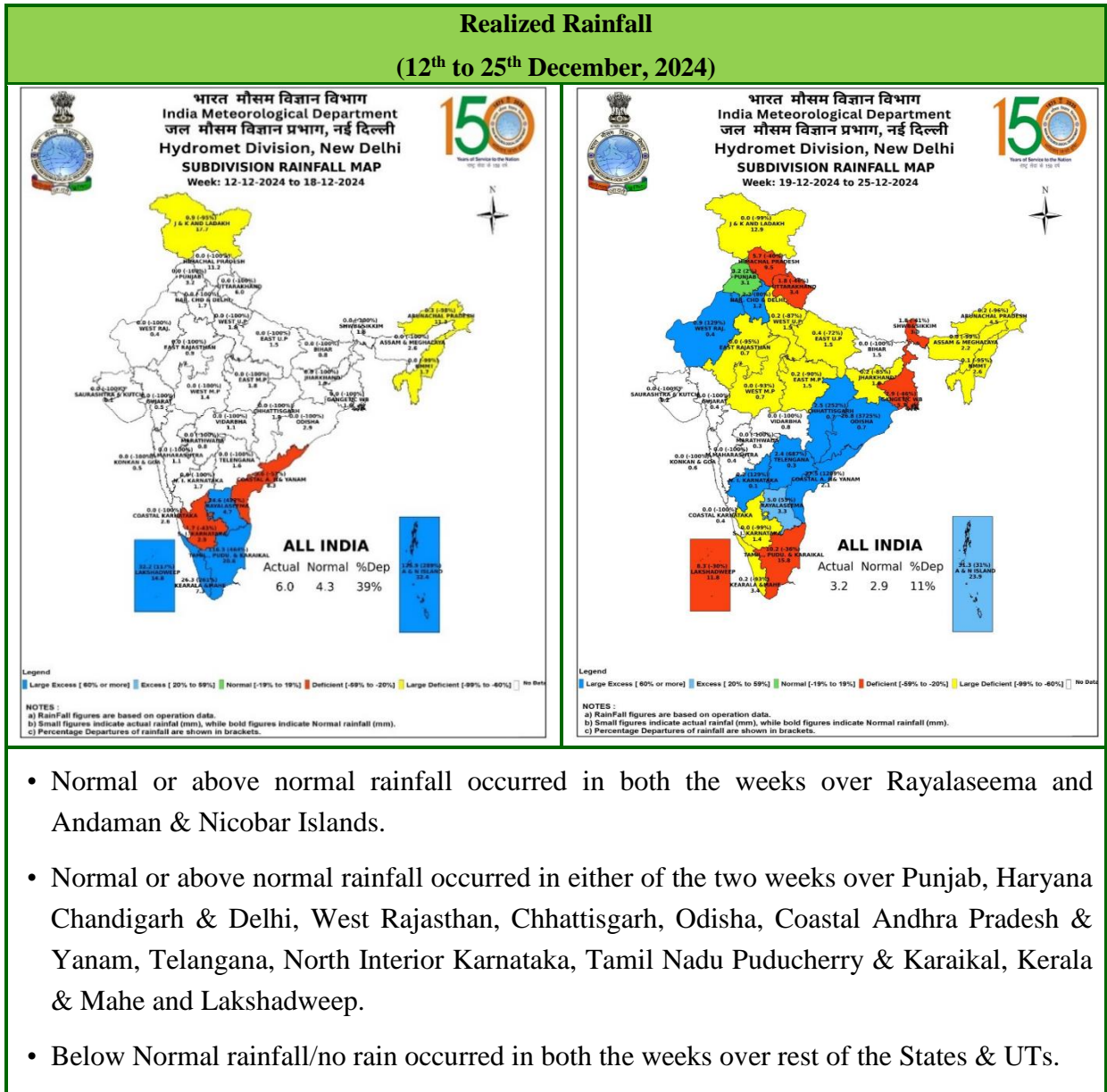
भारतीय मौसम विज्ञान विभाग

India Meteorological Department (IMD)

पृथ्वी प्रणाली विज्ञान संगठन

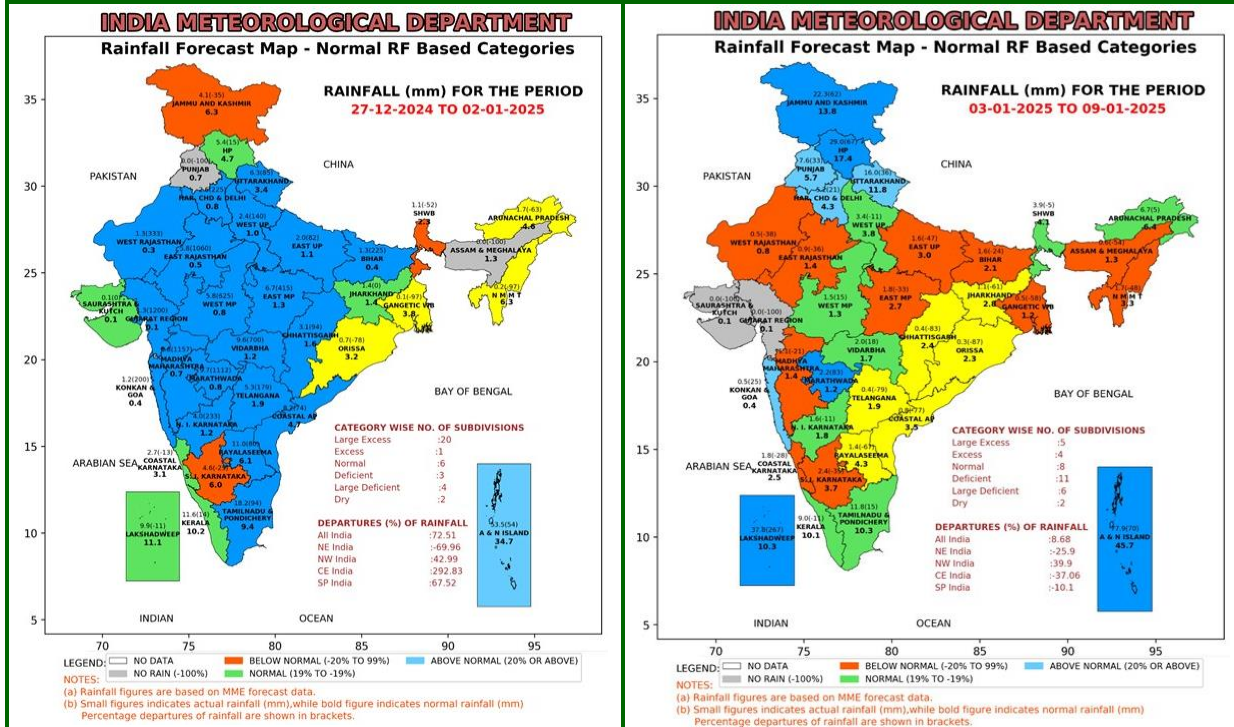
Earth System Science Organization

वास्तविक वर्षा तथा विस्तारित अवधि पूर्वानुमान
Realized Rainfall and Extended Range Forecast
 (वर्षा और तापमान)
 (Rainfall and Temperature)



Extended Range Forecast System

Rainfall forecast maps for the next 2 weeks (IC- 25th December, 2024) (27th December, 2024 to 09th January, 2025)



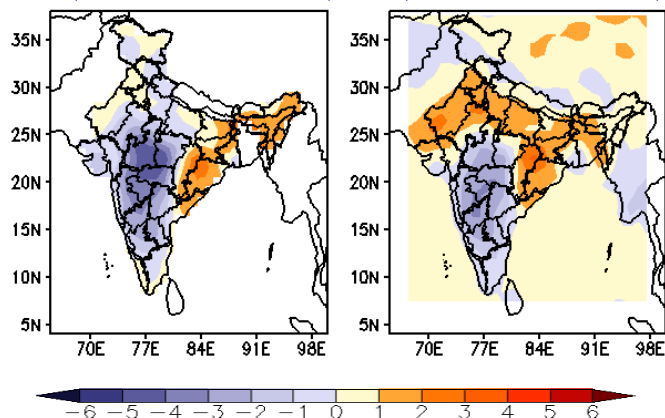
- **Week 1 (27.12.2024 to 02.01.2025):** Rainfall is likely to be above normal over Maharashtra, some parts of Madhya Pradesh, isolated pockets of Rajasthan and coastal regions of Tamil Nadu and South Andhra Pradesh.
- **Week 2 (03.01.2025 to 09.01.2025):** Rainfall is likely to be above normal over Jammu & Kashmir and Himachal Pradesh.

**Maximum and Minimum temperature anomaly ($^{\circ}$ C) forecast
for the next 2 weeks (IC- 25th December, 2024)
(27th December, 2024 to 09th January, 2025)**

MME forecast Tmax anomaly (Deg C)

(Week1: 27Dec-02Jan)

(Week2: 03Jan-09Jan)



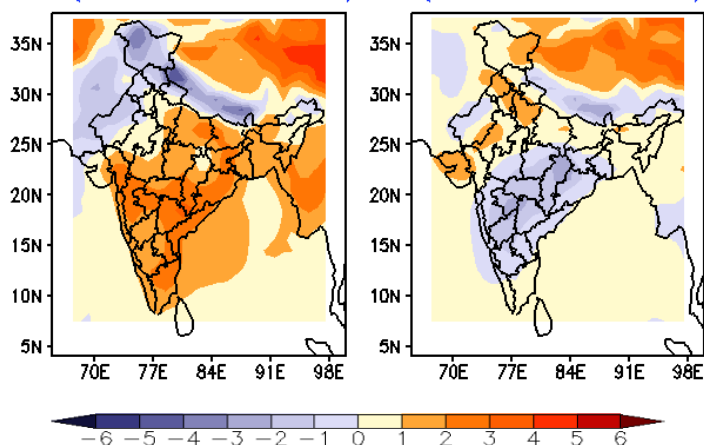
Maximum Temperature (Tmax)

- **Week 1 (27.12.2024 to 02.01.2025):** Maximum temperature is likely to be below normal over Central India, some parts of North West India, West India and South India. However, it is likely to be above normal over East India, North East India, Punjab, Haryana, Jammu & Kashmir.
- **Week 2 (03.01.2025 to 09.01.2025):** Maximum temperature is likely to be below normal over Central India and South India. However, it is likely to be above normal over North west India, East India, North East India and Chhattisgarh.

MME forecast Tmin anomaly (Deg C)

(Week1: 27Dec-02Jan)

(Week2: 03Jan-09Jan)



Minimum Temperature (Tmin)

- **Week 1 (27.12.2024 to 02.01.2025):** Minimum temperature is likely to be above normal over most parts of the country. It is likely to be below normal over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab and west Rajasthan.
- **Week 2 (03.01.2025 to 09.01.2025):** Minimum temperature is likely to be above normal over Bihar, Gujarat, Kerala, Tamil Nadu and most parts of North West & North East India. It is likely to be below normal over Central India, many parts of west India and some parts of East & South India.

Strategic Agricultural Planning based on rainfall till 09 January 2024

Agromet Advisories

Kerala

Kerala received rainfall of 486.7 mm (-1% normal) from 01 October to 29 December 2024. The extended range weather forecast (rainfall) for the next two weeks (27 December 2024 - 02 January 2025 and 03 January - 09 January 2025) is above normal rainfall for week 1 and week 2.

- To control and prevent bacterial leaf blight in paddy, dissolve 20 g of cow dung in one liter of water and spray the supernatant liquid by mixing with 20g of pseudomonas. If the attack is severe spray 6 g of Streptocycline in 30 liter of water.
- There is a chance of Leaf folder attack in Mundakan Paddy. It can be controlled by using trichogramma cards (2CC per one acre). Cut the cards in to small pieces and fix in different regions of the field. If the attack is severe, spray Tetraniliprole @ 6 ml per ten litres of water.
- Calcium and boron deficiency are seen in banana. To control leaf curling in banana, due to calcium deficiency, apply 250g lime per banana plant. Boron deficiency is seen more during dry weather. Spray one-gram borax per one litre of water.
- Attack of Rhinoceros beetle and Red Palm weevil is seen in coconut. As a prophylactic measure against this, top most three leaf axils may be filled with 25g neem cake and 200g sand mixture or naphthalene balls and sand and repeat this procedure 45 days interval; Crown cleaning followed by the application of 20g cartap hydrochloride 4G/ Fipronil 0.3G /Carbosulphan 6G mixed with 200g sand on top three leaf axils; mist net balls can be inserted around leaf spindles.
- During the winter season, cucurbitaceous vegetables are prone to powdery mildew disease. To prevent this, mix 20 grams of Trichoderma in one litre of water and spray during the cool hours.
- There is a possibility of thrips infestation on chili plants. To control this, spray a mixture of 2% neem oil and garlic extract on the underside of the leaves at intervals of 10 days. If the infestation is severe, mix 3 ml of Imidacloprid in 10 litres of water and spray.

Tamil Nadu

Tamil Nadu received 585.3 mm (33% excess) of rainfall from 01 October to 29 December 2024. The extended-range weather forecast (rainfall) for the next two weeks (27 December 2024 - 02 January 2025 and 03 January - 09 January 2025) is large excess rainfall for week 1 and normal rainfall for week 2.

- In rainfed crops, to prevent crop damage from continuous rainfall, farmers are advised to ensure proper drainage systems to avoid water stagnation in the fields.
- Farmers are advised to irrigate based on the crop requirement.
- In Paddy (crop establishment), maintain an appropriate water level to prevent crop damage.
- In sorghum and maize. Continuous rainfall may affect the crop stand; hence farmers are requested to practice earth up and form new ridges to provide additional anchorage to the plants
- High wind speeds may damage the physical appearance of the crop. Hence, farmers are advised to practice propping. Earthing up should be practiced to avoid lodging

- Continuous rainfall may lodge the crop; hence, farmers are advised to provide support by propping and to practice earthing up.

Karnataka

South Interior Karnataka received rainfall of 284.4 mm (43% Normal); Coastal Karnataka received 353.2 mm (34% excess) rainfall and 136.4 mm (4% normal) rainfall was received by North Interior Karnataka from 01 October to 29 December 2024. The extended range weather forecast (rainfall) provided for the next two weeks (27 December 2024 - 02 January 2025 and 03 January - 09 January 2025) is normal rainfall over Coastal Karnataka, deficit rainfall over South Interior Karnataka and large excess rainfall over North Interior Karnataka for week 1 and deficit rainfall over Coastal Karnataka and South Interior Karnataka, normal rainfall over North Interior Karnataka during week 2.

South Interior Karnataka

- Right time for harvesting late Kharif and early rabi crops
- The grains of the harvested crops should be properly dried by retaining moisture percentage of Cereals 11-12 %, Pulses-9%, Oilseeds-8% and Vegetable seeds 5-6% for long storage & also minimizes the store pest damage.
- To protect the pulse grains from storage pests, apply oils Castor/ linseed/honge/neem oil @ 3-5 ml per kg of grains.
- Maintain optimum room temperature in the sericulture and poultry unit.
- To control of aphids and white fly in Field bean and Cowpea to spray Carbosulfan 25% EC @ 1.5 ml/ litre of water.

Andhra Pradesh

From 01 October to 29 December 2024, Coastal Andhra received 282.3 mm (-12% normal) and 344.4 mm (47% excess) of rainfall in the Rayalaseema region. The extended-range weather forecast (rainfall) provided for the next two weeks (27 December 2024 - 02 January 2025 and 03 January - 09 January 2025) shows large excess rainfall over Rayalaseema and Coastal Andhra Pradesh for week 1 and large deficit rainfall during week 2.

- The present crop is at vegetative stage. Advised to take up one hand weeding or intercultivation at 15-20 DAS for control of weeds and better aeration to crops. If micro nutrient deficiency (zinc and iron) symptoms noticed during flowering stage, take up spraying of 2g zinc sulphate for control of zinc deficiency and control iron deficiency to spray 5 g ferrous sulphate + 1 g of citric acid per litre of water and repeat the same spray at 10 days interval.
- Farmers are advised to take up intercultivation and apply 10 kg of urea per acre at initial flowering stage. During maximum flowering stage apply gypsum@200 kg/acre by placement method. Prevailing weather conditions are favorable for leaf minor and spodoptera incidence in groundnut. Advised to spray quinalphos @2 ml or novaluron @1 ml or chloropyriphos@2.5 ml per litre of water.
- Fall army worm incidence may occur in the maize crop at vegetative stage. Go for release of Trichogramma @ 20,000 eggs/acre and spray neem oil @ 5ml/l to control egg masses and first instar larvae or spray chloripyriphos @ 2ml/l and spray should be directed into whorls. Present weather conditions may lead to the incidence of stem borer in maize. To control go for granular application of carbofuran 3% CG @ 3 kg/acre in leaf whorls.

- Rabi rice transplanting is under progress. Farmers are advised to apply recommended dose of fertilizers and make 20 cm alleyways at every 2 meters apart to facilitate free aeration and for uniform application of fertilizers, weedicides and pest management practices. Zinc deficiency is major problem during rabi season, suggested to apply zinc sulphate @ 20 kg/acre to avoid the zinc deficiency. Deficiency in the standing crop can be corrected by spraying zinc sulphate @ 0.2% (2 g/l of water). The spraying should be repeated at 5 days interval depending on the severity of the problem.
- At present mango crop is at flower bud initiation stage. To encourage uniform flowering, farmers are advised to spray potassium nitrate @10 g and boron @ 2 g per liter of water for two times at 10 to 15 days interval.
- Present weather conditions are favorable for fruit canker incidence in sweet orange. For control, advised to spray copper oxy chloride @3.0 g and streptomycin @ 0.5 gm per liter of water is recommended.
- Present weather conditions are congenial for the incidence of hoppers, anthracnose and powdery mildew in mango. To control, during flower bud initiation advised to spray imidacloprid @0.3 ml + chlorothalonil @2.0 ml per litre of water. Before flowering stage, to spray thiamethoxam @0.3 g or buprofezin @1.5 ml and hexaconazole@2 ml or mancozeb@2 g per litre of water is recommended.
- Present weather conditions are favorable for sucking pest incidence in mango. For control, full-grown trees, especially centre branches, have to be pruned to facilitate adequate light penetrance. Spray neem oil @ 5 ml per litre of water and based on intensity of infestation spray systemic insecticides i.e., imidacloprid 17.8SL @ 0.3 ml or thiamethoxam @ 0.2 g per liter of water is recommended.

Odisha

Odisha received rainfall of 119.4 mm (-15% normal) from 01 October to 29 December 2024. The extended range weather forecast (rainfall) provided for the next two weeks (27 December 2024 - 02 January 2025 and 03 January - 09 January 2025) is a large deficit rainfall over Odisha for week 1 and week 2.

- Use low cost polythene cover above the vegetables nursery to avoid poor germination due to low temperature.
- Carry out weeding, hoeing and other intercultural operations in Rabi vegetables.
- Soon after noticing the infestation of the stored grain insect pest, take up fumigation by using Aluminium phosphide (do not use in dwelling houses) tablets @ of 3 tablets/ ton grain (total 9 g of tablets) in fairly air tight containers or by covering with thick tarpaulin leaving no gaps. The tablets should be wrapped in cotton pouches before placing them in the stacks. All the corners of plastic cover should be plastered with 6- inch thick layer of mud/ adhesive tapes to prevent leakage of gas. Minimum exposure period is for about 7-10 days.
- In Cole crops irrigation should be done at 7-8 Days interval depending upon soil moisture and weather condition
- Due to low night temperature, there will be chance of infestation of sucking pests, leaf blight, powdery mildew in the Rabi crops and vegetables. Monitor the crops and vegetables, if symptoms are noticed, undertake appropriate plant protection measures.
- In winter during cold hours farmers should keep doors, windows and open spaces in cow sheds covered with polythene or gunny bag curtains to prevent direct contact to cold air.
- Due to decrease in minimum temperature and foggy condition there may be chances of late blight in tomato, to avoid late blight precaution must be taken during the initial infection

stage. Spray 2.5 g Metalaxyl + Mancozeb/lit of water. Mix 3-gram Trichoderma with per kg of seed during seed treatment. Avoid excess nitrogen fertilizer and close spacing of plants.

- During winters, there is a possibility of “EUS” disease in fish. Farmers are advised to apply Cifax @ 400 ml mixed with 40 litre of water in one-acre pond area as a preventive measure. The fishes should be fed daily with oil cake bran mixture at the rate of 2-3 % of their total biomass.

Maharashtra

Konkan received rainfall of 241.4 mm (72% large excess), 106.1 mm (2% normal) rainfall over Madhya Maharashtra, 72.9 mm (-24% deficit) rainfall over Marathwada, and 44.3 mm (-42% deficit) rainfall over Vidarbha was recorded from 01 October to 29 December 2024. The extended range weather forecast (rainfall) for the next two weeks (27 December 2024 - 02 January 2025 and 03 January - 09 January 2025) is large deficit rainfall over Konkan, Madhya Maharashtra, Marathwada, and Vidarbha for week 1 and excess rainfall over Konkan, deficit rainfall over Madhya Maharashtra, large excess over Marathwada and normal rainfall over Vidarbha during week 2.

Konkan

- The roots of the tree need to be stressed for the mango blooming. For this, one meter of grass around the trunk of the mango orchards should be removed to pulverize the soil in the basin, shallow ploughing should be done in the open space in the mango orchard, the cleaning of the orchard should be completed as soon as possible so that the amount of water in the soil in the mango orchard can be reduced quickly and help the tree to bear stress.
- Avoid consecutive spraying of the same insecticide. Clean the cashew orchard by removing weeds and then proceed with the pesticide spray. Additionally, spray nearby native trees along with the grafted cashew trees to achieve effective control over the pest infestation. Due to cloudy weather, it likely led to an outbreak of anthracnose disease. The disease causes irregularly shaped hazel spots on the leaves and if the disease intensifies, the whole leaves blight off and fall off. To control disease, spray Mancozeb 20 gm per 10 liters of water.
- Fertilizer's second dose should be applied to the arecanut orchard during December to January. For arecanut plants older than three years, 160 grams of urea and 125 grams of muriate of potash should be applied per tree using the ring method. While applying these fertilizers to orchards under three years of age, one-third of the dose should be given in the first year and two-thirds in the second year.
- For management of sucking pest, install yellow sticky trap /Guntha in crop. Apply second split dose of 11g urea per vine of watermelon crop and for hybrid watermelon varieties apply 20g urea per vine.
- At the rhizome formation stage, the turmeric crop is likely to experience water scarcity. Additionally, since the rhizome formation stage is highly sensitive to soil moisture, it is essential to ensure an adequate water supply to the crop as needed.
- For cultivation of watermelon crop, perform ploughing after harvest of kharif rice when soil is at field capacity. Follow sowing on ridges and furrow having spacing of 2 X 0.50 m.
- Cloudy weather and increased humidity may lead to a significant rise in the population of hoppers on mango crops. If the hopper population exceeds the economic threshold level (ETL) (on vegetative flush/flowering stage ≥ 10 hoppers per flush/inflorescence), insecticide spraying should be undertaken. For a pale greenish vegetative flush, spray Deltamethrin 2.8% EC at 9 ml per 10 liters of water. During the bud initiation stage, spray

Lambda-Cyhalothrin 5% EC at 6 ml per 10 litres of water. Before flowering, spray Imidacloprid 17.8% EC at 3 ml or Buprofezin 25% EC at 20 ml per 10 litres of water. After flowering, during the fruit set stage, spray Thiamethoxam 25% WG at 1 gram per 10 litres of water.

Madhya Maharashtra

- Foliar spray of 2% Urea for chickpea under moisture stress condition is advised and second spray of 2% Potassium Nitrate after 10-15 days after first spray is advised.
- Foliar application of 2% Potassium Nitrate on Sorghum for reduction of severity of moisture stress is advised. One irrigation (if available) may be given to the sorghum crop at its flag leaf stage.
- Kharif sown pigeonpea is in the maturity stage and needs to be harvested. Mechanically harvesting is recommended to overcome the labour shortage.
- Looking at the cloudy conditions in the forecast, there is a possibility of incidence of some diseases and pests on safflower, Hence, to control Alternaria leaf spot disease of safflower, spraying of combi-fungicide Carbendazim (12%) + Mancozeb (63%) @ 2 gm per litre of water is suggested.
- Incidence of grasshoppers and bud-eating larvae is noticed on late sown chickpea, hence dusting of Malathion @ 15- 20 kg per ha in early morning is advised.

Marathwada

- Due to cloudy weather condition, if infestation of pod borer & pod fly is observed in pigeonpea crop. Make use of T-shaped bird perches @ 20 per acre and two pheromone traps per acre. For management of pod borer in pigeon pea take a spray of Emamectin Benzoate 5% @ 4.4 g or Spinosad 45% @ 3 ml or indoxacarb 14.5% @ 8 ml or Chlorantraniliprole 18.5% @ 3ml per 10 liter of water. For management of pod fly take a spray of Lambda cyhalothrine 5% @ 8 ml or Lufenuron 5.4% @ 12 ml per 10 litre of water during clear weather conditions. As per the rainfall forecast harvested crops are stored at safe place.
- For management of Rhizome fly in turmeric take a spray of Quinalphos 25 % @ 20 ml or Diamethoate 30 % @ 15 ml per 10 liter of water with an interval of 15 days during clear weather condition. Cover the rhizome with the help of soil. (As label claim was not given by Central Insecticides Board for Rhizome fly in turmeric the research recommendation of university is mentioned here). For management leaf spot disease in Turmeric crop take a spray of Azoxystrobin 18.2% + Difenconazole 11.4% (Premixed Fungicide) @ 10 ml + 5 ml Sticker per 10 liter of water during clear weather condition.
- If infestation of fall armyworm is observed in early sown Rabi Sorghum crop, for management of fall armyworm take a spray of Emamectine Benzoate 5 % @ 4 g or Spinetoram 11.7 SC @ 4 ml per 10 liter of water during clear weather condition.
- If Sigatoka disease is observed in banana orchard, for management take a spray of Propiconazole 10 % EC @ 10 ml or Metiram 55% + Pyraclostrobin 5% WG @ 20 g per 10 litre of water during clear weather condition.
- As per forecast Hail at isolated places in some districts in Marathwada to not tie animals in open places. During the winter months, when cold winds start blowing, you should protect your animals, especially goats and sheep, from the cold. It is generally observed that the goat kids are severely affected by cold waves which may result in mortality. To avoid mortality in kids due to severe cold waves, provide warm bedding, they may be kept in a basket where cloth is provided. Ample amount of milk is to be provided to maintain energy in the body.

- Top dressing of 109 Kg Urea should be done 25 to 30 days after sowing in Irrigate timely sown wheat crop.

Vidarbha

- Undertake clean picking of burst bolls immediately and keep the picked cotton variety wise at safe place. Harvest of first and second picking of Desi improved variety be kept separately to use its cotton seed for next year sowing.
- Undertake need based intercultural in earlier sown crop and keep the field weed free. Need based protective irrigation is advisable in earlier sown chickpea.
- In timely sown irrigated wheat crop, top dressing of nitrogenous fertilizer (@ 50 kg N/ha) 20-25 days after sowing (CRI stage) at the time of irrigation is advisable

Gujarat

Gujarat received a rainfall of 41.3 mm (26% excess) from 01 October to 29 December 2024. The extended range weather forecast (rainfall) provided for the next two weeks (27 December 2024 - 02 January 2025 and 03 January - 09 January 2025) over Gujarat is large excess rainfall for week 1 and no rainfall during week 2.

- Animals like goats, sheep and others should be allowed to graze on unopened bolls and plant debris in the cotton fields after the last picking to prevent infestation in subsequent years. After grazing, don't burn cotton stalks but do in situ chopping and burying of cotton stalks in soil by mobile chopper and rotavator to improve soil biomass and health or prepare ex-situ compost.
- Monitor the cumin crop for infestation of aphid and thrips, if infestation observe above ETL, carry out spraying of 500 ml of 5 % Neem seed extract or Neem oil 50 ml or Thiamethoxam 25 % WG @ 5 g/10 litre of water. Spray Mancozeb 75 % WP 27 g or Hexaconazole 5 % EC 15 ml in 10 litres of water at 10 days interval as precautionary measure against blight and powdery mildew diseases.
- If an infestation of mite is observed in chilli, spray Ethion 50 % EC 15 ml or Propargite 57 % EC @ 10 ml/ 10 litre of water. Rouging of viral infected plants should be done in chilli. Infected plants should be uprooted and buried in the soil. After rouging, spraying Imidacloprid 17.80 % SL @ 3 ml per 10 litre of water is advised to control the vector.
- Avoid spraying pesticides whenever predators like ladybird beetle, syrphid fly and chrysopa are present in the coriander field which are predated the aphids. Set up yellow stick traps @ 10/ha to monitor aphid population.

Chhattisgarh

Rainfall received over Chhattisgarh was 37.3 mm (-51% deficit) from 01 October to 29 December 2024. The extended range weather forecast (rainfall) provided for the next two weeks (27 December 2024 - 02 January 2025 and 03 January - 09 January 2025) over Chhattisgarh is large excess rainfall for week 1 and large deficit rainfall for week 2.

- Use improved varieties of chickpea such as: Indira chana-1, Chhattisgarh chana-2, Chhattisgarh lochan chana and Vaibhav etc. for sowing with the seed rate @ 75-80 kg / ha. Treatment should be done with Trichoderma powder @ 6 to 10 gram/kg seed.
- First irrigation should be done 25-30 days after sowing (4-6 leaf stage) in mustard.
- Use fertilizer amount @ 20 kg nitrogen, Phosphorous 40-50 kg, Potash 20 kg per hectare.

- The amount of fertilizer for irrigated crop is 60 kg nitrogen, Phosphorous 30 kg and Potash 30 kg per hectare and for unirrigated crop, fertilizer amount is nitrogen 40 kg, Phosphorous 20 kg, Potash 20 kg per hectare.
- When the safflower crop is at the stage of 20-25 days, control weeds by weeding.
- Sugarcane crop harvesting should be done at physiological maturity stage.

Madhya Pradesh

Rainfall received over East Madhya Pradesh was 36.8 mm (-33% deficit), and 50.4 mm (9% deficit) over West Madhya Pradesh from 01 October to 29 December 2024. The extended range weather forecast (rainfall) provided for the next two weeks (27 December 2024 - 02 January 2025 and 03 January - 09 January 2025) is large excess rainfall over East Madhya Pradesh and West Madhya Pradesh for week 1 and deficit rainfall over East Madhya Pradesh and normal rainfall over West Madhya Pradesh for week 2.

- Nipping is required in chickpea to increase the number of branches per plant. For Garden peas at the pod picking stage. Picking is done followed by light sprinkler irrigation. Intercultural operation is practised between rows of pigeonpea.
- Light irrigation in spinach, fenugreek, cauliflower, cabbage, carrot and radish. Potato farmers are advised to earthing up followed by fertilizer application followed by irrigation in one-month-old crop. Spinach, Radish, and Coriander can be sown as per the requirements with BMPs for weeding and irrigation.
- Weed is controlled under fruit canopy. Apply fertilizers under the fruit trees as per the recommendations. In mango, due to dryness around the tree, termite infestation may occur. Soil drenching with suitable insecticide. In mango, due to dryness around the tree, termite infestation may occur. Soil drenching with suitable insecticide.
- Monitoring the field. As light rainfall is expected that creates humidity followed by aphid attack.
- Apply insecticide application against fruit borer in tomato and brinjal vegetables, after consulting scientists from a nearby KVK.

Assam

Rainfall received over Assam was 211.9 mm (12% normal) from 01 October to 29 December 2024. The extended range weather forecast (rainfall) provided for the next two weeks for Assam is (27 December 2024 - 02 January 2025 and 03 January - 09 January 2025) no rainfall for week 1 and deficit rainfall for week 2.

- Main field preparation should be started for transplanting of boro paddy seedlings at proper age i.e 4 to 5 leaf stage (45 days old seedling) as weather is very much favourable. Preparation of seedlings for initial protection in the main field: After washing the roots of the uprooted seedlings the root portion is to be dipped in 0.02% solution of Chlorpyrifos (1 ml/lit of water) along with 1% urea for 3 hrs. as a protective measure against stem borer, gall midge and hoppers.
- Due to dry weather irrigation should be applied during the flowering stage. For enhancing yield through increased pollination, 5 honey bee colonies/ha may be placed in a rapeseed-mustard field after flowering. In the seedling stage many areas of cutworm infestation may be seen. To control the pest, spray Chloranthanilprole 18.5 SC or Coragen @ 3 ml per 10lit water in the evening hours. Farmers are advised to be vigilant against the incidence of mustard aphid.

- Supply irrigation water in the potato field is one of the important aspects to increase the tuber yield. Hence, furrow method of irrigation has to be advocated. Three irrigations should be applied in the potato field. Firstly, 25 days (Stolon formation stage), second at 60 days (Tuber formation stage) and finally 80 days (Tuber development stage) after emergence of sprout. To control red ant and cutworm apply phorate 10% granules @ 2 kg/bigha or Clothianidin 50 WDG @ 2 gm/litre in the soil at the time of earthing up
- Land preparation and sowing may be continued for rabi pulses like lentil, rajmah, pea, lathyrus and oilseeds like linseed and niger. Thinning and weeding of already sown oilseed and pulse crops may be done within 15-21 days of sowing.
- Due to favourable weather appearance of Sigatoka leaf spot may be observed in the Banana plant. Spray Carbendazim @ 0.5gm/liter of water at first appearance followed by 4 numbers of sprays at 30 days interval. Maintain the banana orchard weed free and avoid water stagnation.

West Bengal

Gangetic West Bengal received rainfall of 208.5 mm (19% normal) and Sub Himalayan West Bengal received 176.0 mm (5% normal) rainfall from 01 October to 29 December 2024. The extended range weather forecast (rainfall) for the next two weeks (27 December 2024 - 02 January 2025 and 03 January - 09 January 2025) is large deficit rainfall over Gangetic West Bengal and deficit rainfall over Sub-Himalayan West Bengal during week 1 and deficit rainfall over Gangetic West Bengal and normal rainfall over Sub-Himalayan West Bengal during week 2.

- Paddy seeds may be treated with Trichoderma viride to prevent future fungal infection. Swarna Sub-1, IR-64, MTU 1010, Pusa Basmati, Arize 6444 Gold are some of the popular rice varieties. In the upcoming days, temperature is expected to substantially fall so farmers are advised to cover the seed bed to avoid yellowing.
- Drainage channels in mustard fields should be cleared periodically. One hand weeding may be given if weed infestation prevails. No irrigation is required now.
- No extra irrigation is required in lentils. Pusa Ageti, Bidhan-lentil, L-4727 are the recommended varieties in the lentil. As there is a delay in sowing, short duration varieties may be promising this year. The recommended fertilizer dose for lentil is 20:40:20 kg/ha (N:P: K). 20 kg/ha Sulphur may be helpful in better seed quality. One-hand weeding may be done before attaining peak vegetative stage.
- Monitoring of Red Pumpkin Beetles for adults feeding on young leaves and flowers. Hand-pick beetles during early infestation and spray Carbaryl 50 WP (2 g/liter of water) if damage increases. Use pheromone traps to monitor fruit fly population. Remove and destroy infested fruits promptly. Spray Malathion 50 EC (2 ml/liter of water) or use bait sprays with Gur + Malathion for effective control. Use Neem-based insecticides (3 ml/liter of water) or Thiamethoxam 25 WG (0.5 g/liter of water) to control infestations of aphids.

Jharkhand

Jharkhand received rainfall of 62.9 mm (-29% deficit) from 01 October to 29 December 2024. The extended range weather forecast (rainfall) provided for the next two weeks (27 December 2024 - 02 January 2025 and 03 January - 09 January 2025) over Jharkhand is a normal rainfall for week 1 and large deficit rainfall during week 2.

- First irrigation should be given to late sown wheat crop if it is 21-25 days old as per requirement. After 3-4 days of irrigation broadcasting of rest half dose of nitrogen should

be done. Go for weed management in wheat crop by using meta sulfuron @ 8 gram per 150 liter of water per acre.

- The mustard crop sown on time is in its vegetative stage. If there are too many plants in one place, ensure thinning so that the plants keep getting moisture, air and temperature properly.
- Complete earthing up in 25 to 30 days old potato crop and after making the soil friable, add the remaining quantity of nitrogen (65 kg urea per acre).
- As Onion is shallow rooted crop, so at bulb developing stage (after 60 days) due to forecasted dry weather farmers are advised to go for irrigation.
- There is a possibility of infestation of aphids in cabbage crops, farmers should spray Quinolphos 25% EC at the rate of 1 ml per litre of water to prevent the crop.
- There is a possibility of infestation of aphids in crops, farmers should spray Quinalphos 25% EC at the rate of 1 ml per litre of water to prevent the crop.

Uttar Pradesh

Western Uttar Pradesh received rainfall of 11.6 mm (-60% large deficit) and 4.5 mm (-89% large deficit) rainfall received over Eastern Uttar Pradesh from 01 October to 29 December 2024. The extended range weather forecast (rainfall) for the next two weeks (27 December 2024 - 02 January 2025 and 03 January - 09 January 2025) is large excess rainfall over Eastern Uttar Pradesh and Western Uttar Pradesh during week 1 and deficit rainfall over East Uttar Pradesh and normal rainfall over West Uttar Pradesh during week 2.

Eastern Uttar Pradesh

- To get higher production under irrigated conditions, sow wheat varieties like DBW 187 (Karan Vandana), PBW-826, HD-3249, K-1006 (salt tolerant), HD2967, K-0307, DBW-39, DBW 222 (Karannarendra), DBW 303 (Karan Vaishnavi), WH-1105, WH-1270, HD-3386, HD-3086 etc. as early as possible.
- In gram (flowering stage), To pick up mature fruits from standing crop, watching insect & pest, if need apply recommended dose of insecticide.
- In lentil (tillering stage), Apply light sprinkler irrigation at 30-35 days after dry sowing conditions.
- Thinning is needed. Apply light sprinkler irrigation at 30-35 days after dry sowing conditions in mustard.
- Irrigation and pick up mature fruits from standing crops, watching insects & pests, if need apply the recommended dose of insecticide in brinjal/chilies.

Western Uttar Pradesh

- As per extended range weather forecast above normal rainfall during this week farmers are advised sowing must be completed in this week if not sown suitable late sown varieties under irrigated condition such as Malviya-234, K-7903, K-9162, K-9533, UP-2338, UP-2425, HD-2643, HP-1744, NW-1014, NW-1076, NW-2036, DVW-14, PVW-524 and NW-1076 with 125 kg ha⁻¹ of seed and 100 :50:50 kg ha⁻¹ fertilizer. Postpone irrigation upto 29 Dec. Top dressed ¼ Urea after irrigation at optimum moisture during CRI stage. If seen deficiency of Zinc spray 5.0kg ZnSo₄ with 2% Urea solution/ ha.
- Farmers are advised top dressed 60 kg ha⁻¹ Urea after first irrigation at optimum moisture. Used 4.0 g/ha Metsulfuron or 2,4-D 500g/ha or Corpentrazan 20 g/ha with 300 lt. water spray after first irrigation at optimum moisture for control of broad leaf weeds.

- As per extended range weather forecast above normal rainfall during this week farmers are advised postpone irrigation during this period in maize.
- Farmers are advised weeding and nipping should be taken up 42 - 45 DAS. To protect from frost spray 1% KCl in gram.
- Dig out early sown crop. Take precaution from late blight, spray 2.0 g Mancozeb or 1.5 to 2.5 g Metalaxyl with 1.0 lt. water solution as per present weather conditions.
- In mustard, stop irrigation and if seen Hairy caterpillar used 5% Mailathyan dust 20-25 kg/ha at morning after 29 Dec.

Jammu

Jammu received rainfall of 44.6 mm (-64% large deficit) from 01 October to 29 December 2024. The extended range weather forecast (rainfall) provided for the next two weeks (27 December 2024 - 02 January 2025 and 03 January - 09 January 2025) over Jammu is a deficit rainfall for week 1 and large excess rainfall during week 2.

- Sowing of very late sown wheat varieties (varieties JKW-261 and PBW-752) may be continued with a 25% increase in the seed rate. Treat the seed with vitavax or bavistin or agrozim @ 2g/kg of seed before sowing to avoid the crop from seed borne disease. Apply the recommended dose of fertilizer as basal dose.
- Postpone irrigation in late sown mustard crop (35-40 days old) due to chances of rainfall. Application of 1st dose of nitrogen fertilizer as top dressing after rain is recommended.
- Postpone irrigation due to chances of rainfall. Give hoeing and weeding to late sown Lentil crop at vattar condition of soil.
- Postpone irrigation due to chances of rainfall. Weeding and hoeing is recommended. Carry out earthing up operation in potato at the height of 15-22 cm.
- Prune dry and old shoots of rose. Spray mixture of Bavistin + Dithane M-45 (1gm+2gm) @ 3gm/lt of water, if leaf spot observed in chrysanthemum. Staking is recommended in chrysanthemum.

Rajasthan

East Rajasthan received rainfall of 21.9 mm (-14% normal) and 7.5 mm (-37% deficit) rainfall was received over West Rajasthan from 01 October to 29 December 2024. The extended range weather forecast (rainfall) provided for the next two weeks (27 December 2024 - 02 January 2025 and 03 January - 09 January 2025) large excess rainfall over East Rajasthan and West Rajasthan for week 1 and deficit rainfall during week 2.

- Farmers are advised to complete the sowing of wheat. Improved varieties: - Raj-3077, W.H.-147, G.W.-190, G.W.-322, G.W.- 273, H.I.- 1544, Raj- 4037, H.I- 8498, Lok-1 and Raj-3765. Seed rate: - 100 kg seed per ha. Application of Chlorpyrifos (20EC) @ 5 litres per ha. with pre-irrigation is recommended before sowing in the fields having perennial problem of termite infestation. Recommended dose of fertilizer for N: P: K is 120, 50 and 40 kg / ha.
- Complete the sowing of barley in this week. Improved varieties: R.D-2035, R.D-2786, R.D-2715, R.D-2849 and B.H.- 902. Application of Chlorpyrifos (20EC) @ 5 litres per ha. with pre-irrigation is recommended before sowing in the fields having perennial problem of termite infestation.
- To control blight in gram. Spray of Mencozeb @ 2g/ litre of water.
- Sowing of potato should be done as soon as possible. Selection of cultivars can be done based on need. Cultivars: -Kufri Badshah (Late blight tolerant), Kufri Jyoti (Short

duration), Kufri Alankar, Kufri Chandramukhi. Row to row plant to plant spacing of 45cm × 20cm or 60cm × 15 cm is advised. Seed treatment with 2.0 gm Carbendazim mixed per litre of water per kilogram of seed for five minutes should be done. Thereafter, seeds should be dried in the shade before planting in the field.

- After 30 and 50 days, in the standing crop of late cabbage, 66 kg of nitrogen per hectare should be given.
- Complete the sowing of opium this week. The seed rate is 5kg/ha and the improved varieties are Chetak.

Punjab

Rainfall of 27.1 mm (17% normal) was received over Punjab from 01 October to 29 December 2024. The extended range weather forecast (rainfall) provided for the next two weeks (27 December 2024 - 02 January 2025 and 03 January - 09 January 2025) over Punjab is no rainfall for week 1 and excess rainfall during week 2.

- Under late sown irrigated conditions varieties PBW 752, PBW 771 and PBW 757 should be sown. For wheat sown after 15th December, apply 55 kg DAP or 155 kg single superphosphate per acre at sowing. DAP is used as a source of phosphorus however, if a single superphosphate is used then apply 20 kg urea per acre.
- Apply light irrigation to sensitive crops to protect them from frost. Sow the nursery of chilli and brinjal which is to be transplanted in February-March.
- Efforts can be started to protect the young evergreen fruit plants from cold weather. Apply one irrigation to ber orchards at this time as the trees are laden with fruits. Planning, layout and other preparations can be started for the establishment of new orchards of pear, peach, plum, grapes, fig etc.
- For the management of canker in citrus, spray streptomycin 50 g + 25 g copper sulphate in 500 litres of water per acre or Bordeaux mixture (2:2:250) during this month.
- To check black scurf disinfect the tubers with systiva @80 ml or emesto prime @83 ml or monceren @250ml in 100 liter of water. Irrigate all the vegetables in the field as the weather is expected to be dry in the coming 3-4 days

Haryana

Rainfall of 26.9 mm (46% excess) was received over Haryana from 01 October to 29 December 2024. The extended range weather forecast (rainfall) provided for the next two weeks (27 December 2024 - 02 January 2025 and 03 January - 09 January 2025) over Haryana is large excess rainfall for week 1 and excess rainfall during week 2.

- In mustard. Apply irrigation given anticipated dry weather. Keep vigil on attack of painted bug and occurrence of white rust disease. Weed control measures should be adopted
- Complete the sowing of gram crops with recommended varieties if not done earlier. Farmers are advised to treat the gram seed with Bioderma 4 gram and 1-gram Vitavax mix with 5 ml water for 1 kg seed to control fungal disease and also Rhizobium seed treatment advised as per university recommendation.
- Possibility of dry weather and farmers are advised to complete the sowing of wheat with recommended late varieties. Before sowing seeds should be treated with Bavistin or Vitavax 2.0 g per Kg of seed. Farmers are advised to irrigate the existing crop at CRI stage.
- In the view of dry weather farmers are advised to complete the sowing of Barley with recommended varieties BH 393, BH 902, BH885, BH 986. Before sowing seeds should be treated with Bavistin or Vitavax 2.0 g per Kg of seed.

- Complete the sowing of berseem if not done earlier. In view of anticipated dry weather, requirement-based irrigation may be applied in early sown crop after each cut.
- Due to possibility of fall in night temperature keep the animals under shed. Provide 50 grams iodized salt and 50 to 100 grams mineral mixture daily with animal feed/fodder to keep them healthy.

Uttarakhand

Rainfall of 33.2 mm (-36% deficit) was received over Uttarakhand from 01 October to 29 December 2024. The extended range weather forecast (rainfall) provided for the next two weeks (27 December 2024 - 02 January 2025 and 03 January - 09 January 2025) over Uttarakhand is large excess rainfall for week 1 and excess rainfall during week 2.

- In wheat, postpone applying irrigation and fertilizer. Maintain proper drainage in the field.
- In orange, Harvest mature fruits of Malta, Galgal/citrus species. Prepare value added products like
- Postpone pruning/training work for a few days in apple.
- In onion, continue transplanting of seedlings. Drain the excess water from the crop field.
- Maintain the proper aeration, temperature and humidity in the crop room in mushroom.
- Keeping in mind the decrease in temperatures, it is advised to increase the amount of dry grasses in the feed. Feed mixture of oil, jaggery and ajwain. Give lukewarm water for drinking. Keep close the window and doors of the cattle shed and cover newly born calves with a jute bag.

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