



राष्ट्रीय कृषि मौसम परामर्शी सेवाएं बुलेटिन
National Agromet Advisory Services Bulletin

जारी करने की तिथि / **Date of issue: 11 December 2023**

आधारित / **based on**

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

वैधता / **Validity: 08 - 21 December 2023**

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)

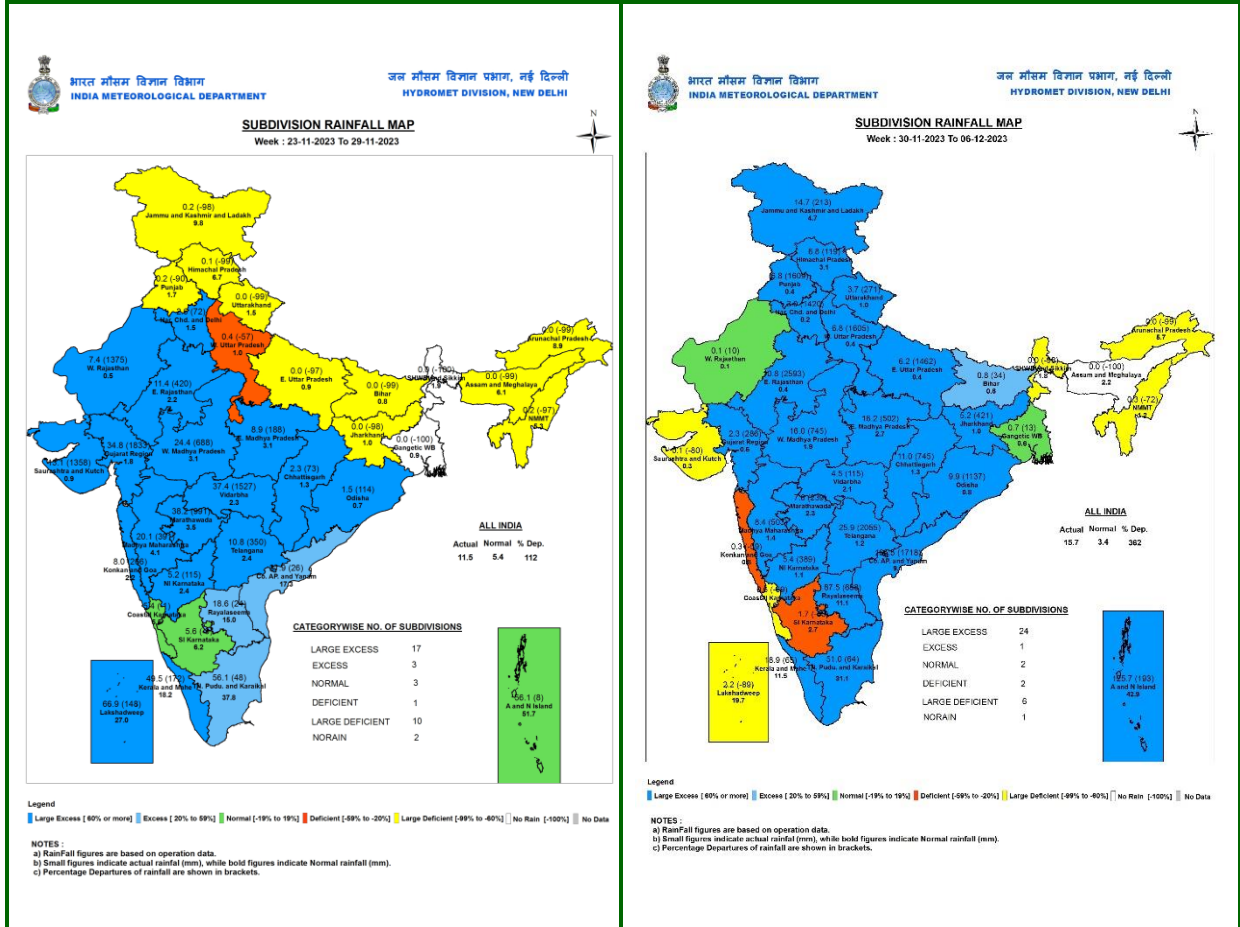
पृथ्वी प्रणाली विज्ञान संगठन

Earth System Science Organization

Realized Rainfall and Extended Range Forecast

Realized Rainfall

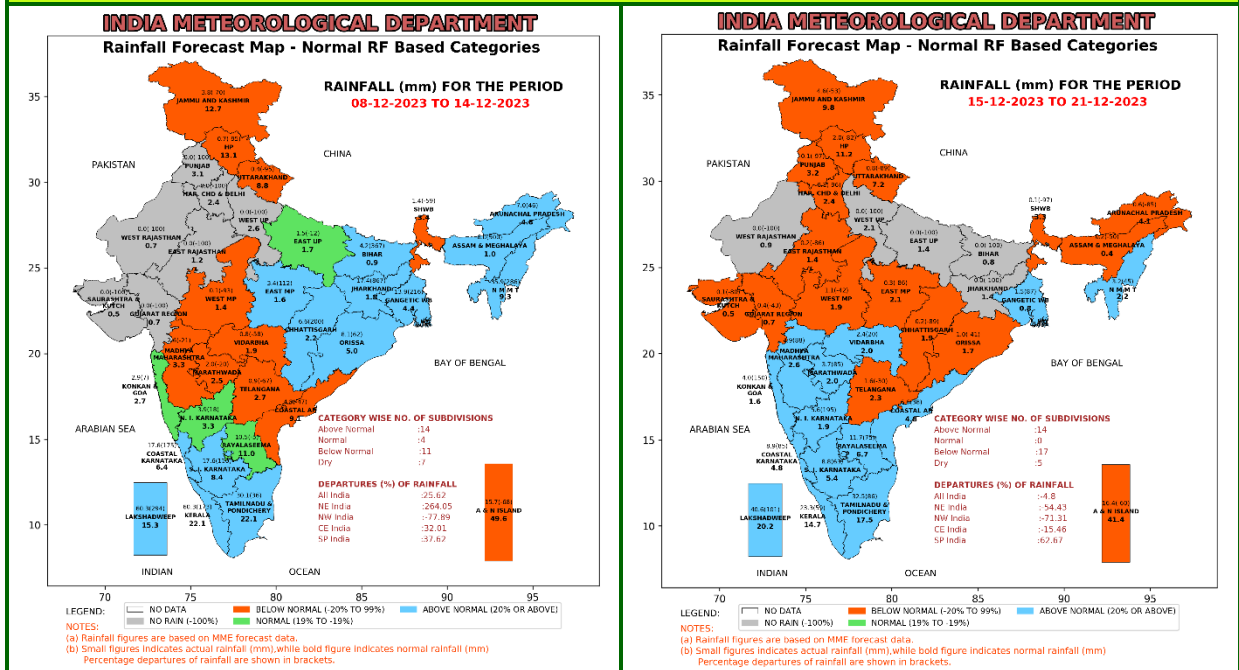
(23rd November to 06th December, 2023)



- Normal or above normal rainfall occurred in both the weeks over Haryana-Chandigarh-Delhi, Rajasthan, Gujarat Region, Madhya Pradesh, Chhattisgarh, Odisha, Madhya Maharashtra, Marathwada, Vidarbha, Telangana, Andhra Pradesh & Yanam, North Interior Karnataka, Tamil Nadu-Puducherry-Karaikal, Kerala & Mahe and Andaman & Nicobar Islands.
- Normal or above normal rainfall occurred in either of the two weeks over Jammu & Kashmir (UT), Ladakh (UT), Himachal Pradesh, Punjab, Uttarakhand, Uttar Pradesh, Bihar, Jharkhand, Gangetic West Bengal, Saurashtra, Konkan & Goa, Coastal & South Interior Karnataka and Lakshadweep.
- Below Normal rainfall/no rain occurred in both the weeks over rest of the country.

Extended Range Forecast System

Rainfall forecast maps for the next 2 weeks (IC- 06th December) (08th to 21st December, 2023)



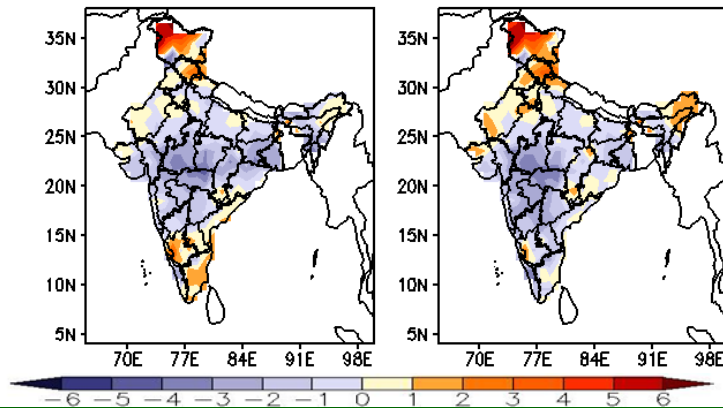
- **Week 1 (08.12.2023 to 14.12.2023):** Rainfall is likely to be above normal over Kerala, Tamil Nadu, Chhattisgarh and some parts of Northeast India.
- **Week 2 (15.12.2023 to 21.12.2023):** Rainfall is likely to be above normal over Kerala and Tamil Nadu.

**Maximum and Minimum temperature anomaly ($^{\circ}\text{C}$) forecast
for the next 2 weeks (IC- 06th December)
(08th to 21st December, 2023)**

MME forecast Tmax anomaly (Deg C)

(Week1: 08Dec-14Dec)

(Week2: 15Dec-21Dec)



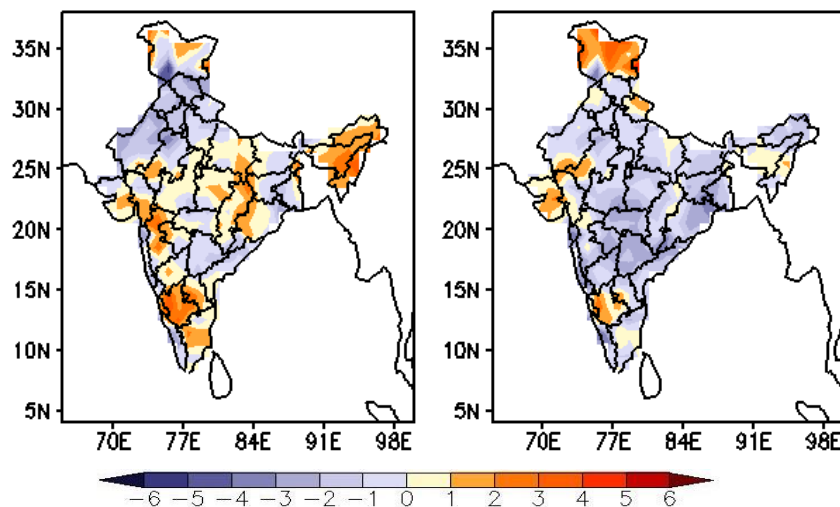
Maximum Temperature (Tmax)

- **Week 1 (08.12.2023 to 14.12.2023):** Maximum temperature is likely to be below normal over the country except some parts of North West India and South India.
- **Week 2 (15.12.2023 to 21.12.2023):** Maximum temperature is likely to be below normal over the country except some parts of North West and North East India.

MME forecast Tmin anomaly (Deg C)

(Week1: 08Dec-14Dec)

(Week2: 15Dec-21Dec)



Minimum Temperature (Tmin)

- **Week 1 (08.12.2023 to 14.12.2023):** Minimum temperature is likely to be above normal over many parts of the country except North West India.
- **Week 2 (15.12.2023 to 21.12.2023):** Minimum temperature is likely to be below normal over most parts of the country except Jammu & Kashmir, Karnataka, Gujarat and some parts of Rajasthan.

Agromet Advisories

Uttar Pradesh

The amount of rainfall received over East Uttar Pradesh was 46 mm (23% excess) and over West Uttar Pradesh was 19 mm (-24% deficit) during 01 October - 07 December 2023. The extended range weather forecast (rainfall) for the next two weeks (08 - 14 December 2023 and 15 - 21 December 2023) is no rainfall over West Uttar Pradesh and normal rainfall over East Uttar Pradesh for week-1 and no rainfall over West Uttar Pradesh and East Uttar Pradesh for week-2.

Western Uttar Pradesh

- Since there is no rainfall forecast during next week, farmers are advised for sowing of late sown wheat varieties under irrigated condition. Recommended varieties are *HUW-234*, *K-7903*, *UP-2338*, *K-9162*, *K-9533*, *HD-2643*, *HP-1744*, *NW-1014*, *K-8020*, *UP-2425*, *NW-2036*, *DBW-14*, *K-9423*, *PBW-524* *NW-1076* and *HUW-510* with 125 kg/ha of seed and 80:60:40 kg /ha fertilizer.
- Farmers are also advised for sowing of late barley varieties viz., *K-572/10*, *Azad (K-125)*, *K-329*, *RS-6*, *NDV-1*, *NDV-940* and *K-1149* with seed rate 100 kg/ha under irrigated condition. Irrigation is recommended after 30-35 days of sowing in standing crop.
- Under prevailing weather condition, if leaf roller infestation is observed in pigeon pea during vegetative/branching stage, it is advised to spray Spinosad 45 % SC @ 2ml per 10 litre water or Quinalphos 25 EC @ 1 to 1.4 ml/litre water is advised
- Weeding and thinning is advised in mustard crop (emergence stage) at 15-20 DAS.

Uttarakhand

26 mm (-32% deficit) rainfall was received over Uttarakhand during 01 October - 07 December 2023. The extended range weather forecast (rainfall) provided for the next two weeks (08 - 14 December 2023 and 15 - 21 December 2023) over Uttarakhand is below normal for week-1 and; week-2.

- In rainfed areas, farmers are advised to remove the weeds from crop fields (wheat/barley/lentil). Use zinc phosphide to control the rats in crop fields.
- In the valley region of the state, it is advised to give first irrigation in early sown wheat crop which is at CRI stage (21-25 DAS) and also apply a second dose of nitrogen fertilizer at first irrigation.

Himachal Pradesh

45 mm (-5% deficit) rainfall was received over Himachal Pradesh during 01 October - 07 December 2023. The extended range weather forecast (rainfall) provided for the next two weeks (08 - 14 December 2023 and 15 - 21 December 2023) over Himachal Pradesh is below normal for week-1 and; week-2.

- Under prevailing weather condition, farmers are advised to go for sowing for late sown wheat crop. The varieties recommended are *VL-892*, *HPW-373* (mid hills) and *HS-490* (Pusa Baker) (low hills). A seed rate of 125 kg / ha is recommended.

- Under prevailing weather condition, farmers are advised to ensure fresh and clean drinking water to animals. Dry bedding may be provided to save the animals from cold. Avoid direct entry of cold winds in animal sheds. Young calves must be kept in sheds during nights.
- Farmers are advised to prepare their fields for potato sowing. Adequate amount of well rotten FYM or compost is recommended to add in the soil during field preparation. The varieties recommended are *Kufri Jyoti*, *Kufri Chandermukhi*, *Kufri Himalini* and *Kufri Giriraj*.
- Farmers are advised to maintain room temperature 25 – 28 °C and relative humidity around 80 - 85% for successful cultivation of mushrooms.

Jammu

130 mm (79% large excess) rainfall was received over Jammu during 01 October - 07 December 2023. The extended range weather forecast (rainfall) provided for the next two weeks (08 - 14 December 2023 and 15 - 21 December 2023) over Jammu is below normal for week-1 and; week-2.

- Due to the presence of sufficient moisture in soil, it is advised to apply 1st top dressing of nitrogen fertilizer in 20 to 25 days old wheat crop. Farmers are also advised to continue sowing of late sown wheat varieties at vattar condition. Treat the seed with Tebuconazole 2 DS @ 1.25 g/kg of seed to protect seedling blight and root rot disease.
- Nipping is recommended in chickpea after receipt of rain in 3-4-week-old crop. Hoeing and weeding is also recommended after receipt of rain.
- Weeding and hoeing is also advised in cole crops. Earthing-up is advised where the crop attains height of 15-22 cm.
- Withhold the irrigation during these days in deciduous fruit orchards like pear, peach, plum and grapes, so that the trees can enter dormancy and become sufficiently hard to withstand cool weather.

Rajasthan

15 mm (11% excess) rainfall was received over East Rajasthan during 01 October - 07 December 2023. The extended range weather forecast (rainfall) provided for the next two weeks (08 - 14 December 2023 and 15 - 21 December 2023) over East Rajasthan is no rainfall for week-1 and; below normal for week-2.

- Farmers are advised to complete the sowing of wheat. Recommended improved varieties are *Raj-3077*, *WH-147*, *GW-190*, *GW-322*, *GW- 273*, *HI- 1544*, *Raj- 4037*, *HI- 8498*, *Lok-1* and *Raj-3765*. Seed rate: - 100 kg seed per ha.
- Sowing of potato is advised as soon as possible. Selection of cultivars can be done on the basis of need. Recommended cultivars *Kufri Badshah* (Late blight tolerant), *Kufri Jyoti* (Short duration), *Kufri Alankar*, *Kufri Chandramukhi*.

West Bengal

203 mm (30% excess) rainfall received over Gangetic West Bengal and rainfall received over Sub Himalayan West Bengal was 190 mm (20% excess) during 01 October - 07 December 2023. The extended range weather forecast (rainfall) for the next two weeks (08 - 14 December 2023 and 15 - 21 December 2023) is above normal over Gangetic West Bengal and below normal over Sub-Himalayan West Bengal during week-1 and; week-2.

- Due to heavy rainfall during last week and forecast of above normal rainfall during next two weeks, the pulse crop establishment may face problems. Therefore, farmers are advised to prepare in advance for re-sowing. The water is advised to drain immediately from the pulse and vegetable fields.
- To monitor and control aphid, jassid, mite, white fly and other sucking pest in brinjal crop at flowering stage, sticky traps are suggested to install. Apply Alike against sucking and chewing pests like flies and aphids.

Chhattisgarh

59 mm (-17% deficit) rainfall was received over Chhattisgarh during 01 October - 07 December 2023. The extended range weather forecast (rainfall) provided for the next two weeks (08 - 14 December 2023 and 15 - 21 December 2023) over Chhattisgarh is above normal for week-1 and; below normal for week-2.

- Because of untimely rains due to “MICHAUNG” cyclone in Bay of Bengal and forecast of above normal rainfall during next week, farmers are advised, not to provide irrigation in standing crop fields and apply insecticide/pesticides/fertilizer only during clear weather condition (no rainfall).
- Under prevailing rainy weather condition, farmers are advised keep the harvested paddy in safe dry places/godown.
- Considering the decrease in temperature, dairy farmers are advised to keep the animals in the cattle shed with concrete / brick roof.

Madhya Pradesh

50 mm (1% excess) rainfall was received over Madhya Pradesh during 01 October - 07 December 2023. The extended range weather forecast (rainfall) provided for the next two weeks (08 - 14 December 2023 and 15 - 21 December 2023) over Madhya Pradesh is above normal for week-1 and; below normal for week-2.

- Due to rainfall and forecast of above normal rainfall during next week, farmers are advised to monitor vegetables and pulse crops. And make provision to drain out excess water from the crop/vegetable fields.

Odisha

118 mm (-13% deficit) rainfall received over Odisha during 01 October - 07 December 2023. The extended range weather forecast (rainfall) provided for the next two weeks (08 - 14 December 2023 and 15 - 21 December 2023) over Odisha is above normal for week-1 and; below normal for week-2.

- Because of rainfall in past week and forecast of above normal rainfall during next week, farmers are advised harvest the paddy if 80 - 85% grains are matured in a panicle, keep the harvested products in safe place and do not leave harvested paddy in field. If threshing is not possible then cover the harvested paddy with polythene to keep it safe from rain.
- Under prevailing weather condition, it is advised to make provision to drain out rain water in standing rice crop by making alleys (Pahi) and keep the drain ends open.
- Due to prevailing rainy weather, farmers are advised to delay the sowing of *rabi* crops like maize, wheat, pulses, oil seeds, vegetables and spices.
- Cover the vegetable nursery with polythene sheet to save it from rain.
- To prevent lodging in sugarcane due to rains, it is advised to tie sugarcane leaves from four to five plants together and provide staking.
- Farmers are advised to withhold spraying of pesticides and irrigation for the time being.
- There are chances of wilt and root rot disease incidence in vegetable crops after the rain. To manage wilt disease in vegetable crops, drench the root zone with a solution of 1.5-gram Streptocycline and 20-gram Metalaxyl 8% + Mancozeb 64 % WP mixed in 10 litres of water.
- After receding of rain water there is a chance of infestation of ear head caterpillar. To manage, it is advised to spray Chlorpyrifos 50% + Cypermethrin 5% EC @ 400-ml/acre or Lambda-cyhalothrin @ 400-ml/acre.

Gujarat

38 mm (19% excess) rainfall received over Gujarat during 01 October - 07 December 2023. The extended range weather forecast (rainfall) provided for the next two weeks (08 - 14 December 2023 and 15 - 21 December 2023) over Gujarat is no rainfall for week-1 and; below normal for week-2.

- For the control of sucking pest in pigeon pea crop which is at flowering to pod formation stage, it is advised to spray Prophenophos @ 25 ml in 10 litres of water. And, for the control of pod fly and pod borer, spray Quinalphos 25 EC @ 20 ml in 10 litres of water.
- To control thrips of garlic, it is advised to spray Dimethoate 15 ml in 15 litres of water at 15 days intervals.

Maharashtra

56 mm (-45% deficit) rainfall over Madhya Maharashtra; 50 mm (-30% deficit) rainfall over Vidarbha; 58 mm (-38% deficit) rainfall over Marathwada; and 118 mm (-15% deficit) in Konkan region was recorded during 01 October - 07 December 2023. The extended range weather forecast (rainfall) for the next two weeks (08 - 14 December 2023 and 15 - 21 December 2023) is normal over Konkan, below normal over Madhya Maharashtra, Marathwada and Vidarbha for week-1 and; above normal over Konkan, Madhya Maharashtra, Marathwada and Vidarbha for week-2, respectively.

Parbhani

- Due to rainfall and cloudy weather during last week, flower drop is observed in late sown pigeon pea crop. For management, it is advised to spray of NAA @ 4 ml + 10 ml Boron per 15 litres of water during clear weather condition.
- Under prevailing weather condition, harvesting of mature vegetable crops is advised as early as possible.
- And, the the places where gusty wind, thunderstorm and rainfall was observed collect and destroy the damaged vegetables/fruits.

Vidarbha

- To avoid the rotting of matured bolls from outer side due to recent rainfall and fungal leaf spot diseases it is advised to undertake foliar spray Carbendazim 50 WP @ 20 g or Propiconazole 25 EC @10 ml or Pyraclostrobin 20 WP @ 20 g in 10 litres of water.
- For delayed sowing of irrigated wheat (November 15 - December 15) use varieties - PDKV Sardar (AKAW 4210-6) and AKW-1071(Purna). Follow seed treatment with Carbendazim @ 2.5 g / kg seed.
- Prevailing weather conditions of partly cloudiness and lower night time temperature are congenial for pod borer incidence in pigeon pea. To manage the incidence of pod borer at flowering stage/pod formation (3/plant or 5 to 10% pod damage) undertake spray first spray of 5% NKSE OR Azadirachtin 300 ppm @ 50 ml per 10 litres of water.

Madhya Maharashtra

- Due to prevailing complete cloudy condition in the major part of the region, there may be fungal attack on rabi crops and horticultural crops. Farmers are advised to remove excess water from fields to protect the crops from fungal attack.
- To protect mango blossom from flower drop, it is advised to apply NAA 20 ppm @ 40 ml + 2 per cent micronutrients in 200 litres of water.
- For effective control of mealy bugs in custard apple (fruit setting to ripening), it is advised to apply *verticillium lucanea* @ 4 ml/litre of water.

Kerala

570 mm (21% excess) received over Kerala during 01 October - 07 December 2023. The extended range weather forecast (rainfall) for the next two weeks (08 - 14 December 2023 and 15 - 21 December 2023) is above normal for week-1 and; week-2.

- During cloudy weather condition, there is a chance of Leaf folder infestation in Mundakan Paddy. To control, it is advised to use Trichogramma cards (2 CC per one acre). Cut the cards in to small pieces and fix in different regions of the field. If the attack is severe, spray Chlorantraniliprole (Coragen) @ 3 ml per 10 litres of water.
- During high humidity, there is a chance of *Pollu* disease in pepper plants. To protect, it is advised that control the shade in the garden and spray with 1% Bordeaux mixture. Also,

Carbendazim and Mancozeb can be mixed and sprayed at the rate of one gram per one litre of water.

Tamil Nadu

372 mm (-3% deficit) received over Tamil Nadu during 01 October - 07 December 2023. The extended range weather forecast (rainfall) for the next two weeks (08 - 14 December 2023 and 15 - 21 December 2023) is above normal for week-1 and; week-2.

- Continuous rainfall and wind may damage the banana crop stand. Hence, farmers are advised for earthing-up and propping to avoid lodging.
- Due to continuous rainy days, intermittent drizzles, cloudy weather, low night temperature less than 22 °C and longer leaf wetness favours blast incidence in paddy crop. To manage, it is advised to spray Carbendazim 50 WP @ 500 g/ha or Tricyclazole 75 WP @ 500 g/ha after observing initial infection of the disease.
- Due to forecast of above normal rainfall during next week, farmers are advised to postpone the irrigation in irrigated crops.

Anantapur

161 mm (-27% deficit) rainfall was received over Rayalaseema and 260 mm (-15% deficit) rainfall was received over Coastal Andhra Pradesh during 01 October - 07 December 2023. The extended range weather forecast (rainfall) provided for the next two weeks (08 - 14 December 2023 and 15 - 21 December 2023) is normal over Rayalaseema and below normal over Coastal Andhra Pradesh for week-1 and; above normal over Rayalaseema and Coastal Andhra Pradesh for week-2.

- The cyclone “Michaung” drastically affected the rice crop (90% of the rice cropped area in the cyclone affected districts) at harvesting stages. Also, the cyclone caused human deaths (6 Nos.).
- Due to the cyclone in the Bay of Bengal from 3rd December 2023, light to moderate rainy conditions may prevail this week. Hence, farmers are advised to avoid irrigation to the crops and provide good drainage to run off the excess water.
- Farmers are advised to do farm operations like weeding, spraying and fertilizer application after rains get stopped. Harvestings can be completed immediately.

Karnataka

142 mm (-26% deficit) rainfall received over South Interior Karnataka, 219 mm (-15% deficit) over Coastal Karnataka and 46 mm (-64% large deficit) rainfall received over North Interior Karnataka during 01 October - 07 December 2023. The extended range weather forecast (rainfall) provided for the next two weeks (08 - 14 December 2023 and 15 - 21 December 2023) is normal over North Interior Karnataka, above normal over Coastal Karnataka and South Interior Karnataka for week-1 and; above normal over North Interior Karnataka, Coastal Karnataka and South Interior Karnataka for week-2.

South Interior Karnataka

- Early sown ragi crop is at maturity/harvesting stage, farmers are recommended for to harvest the crop and keep at safe place.
- Red gram crop is also at maturity/harvesting stage. Farmers are advised to harvest the red gram also.

North Interior Karnataka

- As very light rainfall forecasted for next week, it is advised to provide protective irrigation to the already sown crops if necessary.
- Farmers are advised to take up repeated intercultivation to conserve soil moisture and control weed infestation in already sown crops.

Disclaimer:/अस्वीकरण:

मौसम की भविष्यवाणी कई कारकों पर निर्भर करती है जो प्रकृति में गतिशील हैं। यहां दी गई कृषि मौसम संबंधी सलाहों की सफलता मौसम पूर्वानुमान की सटीकता पर निर्भर करती है। किसी भी स्थिति में, भारतीय मौसम विज्ञान विभाग (IMD) और भारतीय कृषि अनुसंधान परिषद (ICAR) उपयोगकर्ता या किसी तीसरे पक्ष के लिए किसी भी प्रत्यक्ष, अप्रत्यक्ष, आकस्मिक, परिणामी, विशेष या अनुकरणीय नुकसान या खोए हुए लाभ के लिए इस बुलेटिन में प्रस्तुत जानकारी का उपयोग या दुरुपयोग करने के लिये उत्तरदायी नहीं होंगे।

The predictability of weather depends on many factors which are dynamic in nature. The success of Agromet advisories provided here depends on the accuracy of the weather forecast. In no event, India Meteorological Department (IMD) and Indian Council of Agricultural Research (ICAR) will be liable to the user or to any third party for any direct, indirect, incidental, consequential, special or exemplary damages or lost profit resulting from any use or misuse of the information presented in this bulletin.