



राष्ट्रीय कृषि मौसम परामर्शी सेवाएं बुलेटिन  
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आधारित/**based on**

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

वैधता/**Validity: 01 - 14 March 2024**

जारीकर्ता/**Issued by**

अखिल भारतीय समन्वित कृषि-मौसम विज्ञान अनुसंधान परियोजना

**AICRP on Agro-Meteorology (AICRPAM)**

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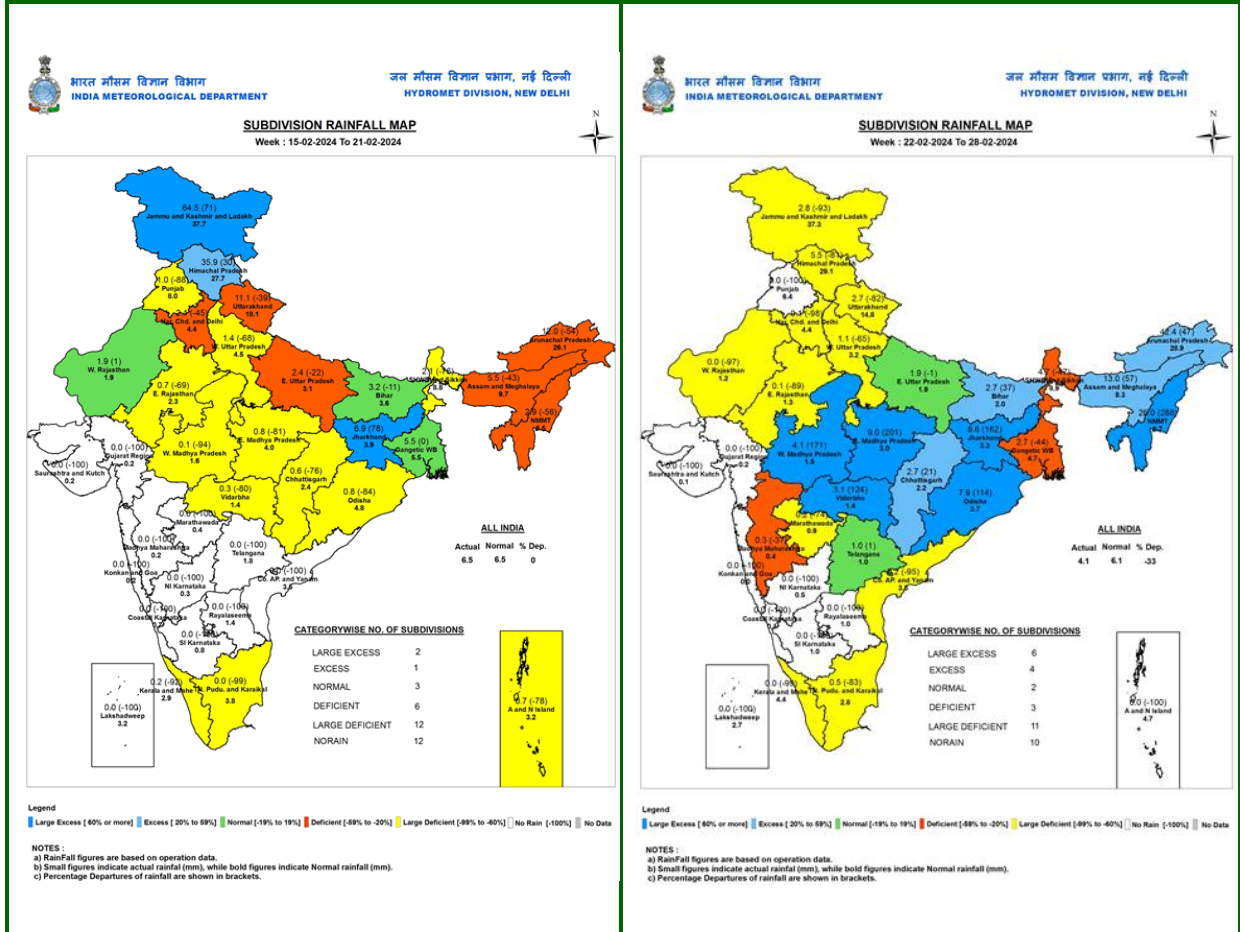
**India Meteorological Department (IMD)**

पृथ्वी प्रणाली विज्ञान संगठन

**Earth System Science Organization**

# Realized Rainfall and Extended Range Forecast

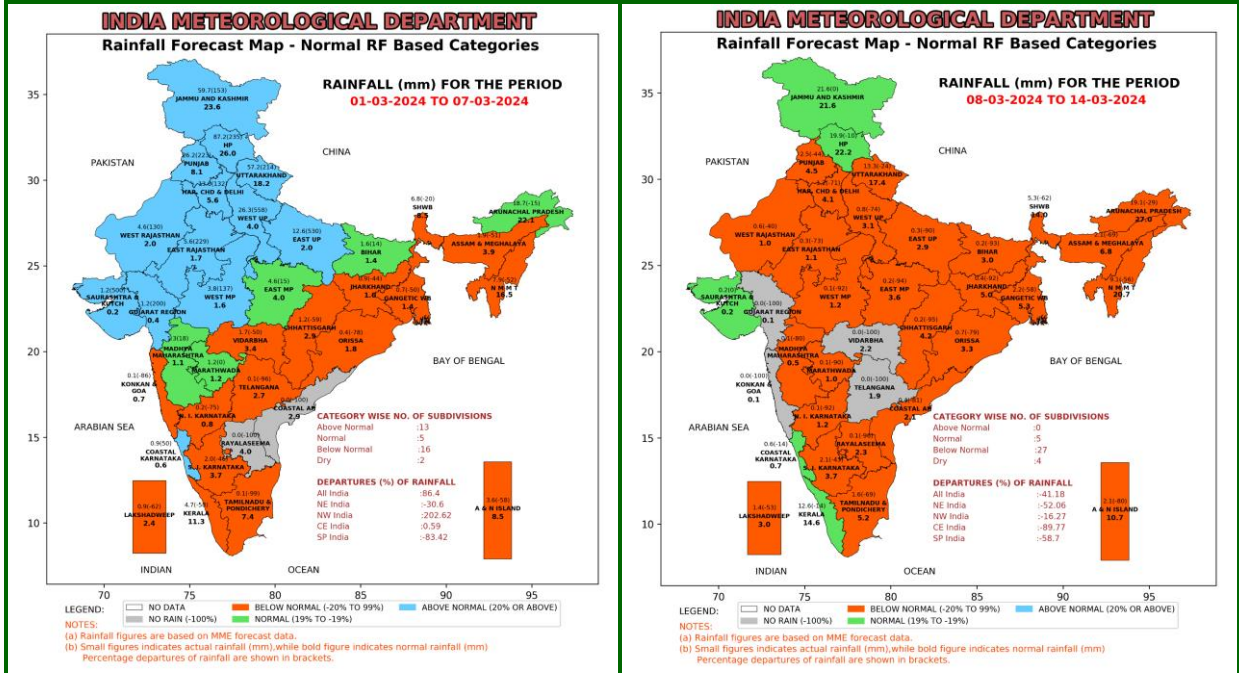
## Realized Rainfall (15<sup>th</sup> to 28<sup>th</sup> February, 2024)



- Normal or above normal rainfall occurred in both the weeks over Bihar and Jharkhand
- Normal or above normal rainfall occurred in either of the two weeks over Jammu & Kashmir and Ladakh (UTs), Himachal Pradesh, East Uttar Pradesh, Gangetic West Bengal, Assam & Meghalaya, Arunachal Pradesh, Nagaland Manipur Mizoram & Tripura (NMMT), West Rajasthan, Madhya Pradesh, Chhattisgarh, Odisha, Vidarbha and Telangana.
- Below Normal rainfall/no rain occurred in both the weeks over rest of the States & UTs.

## Extended Range Forecast System

### Rainfall forecast maps for the next 2 weeks (IC- 28<sup>th</sup> February, 2024) (01<sup>st</sup> to 14<sup>th</sup> March, 2024)



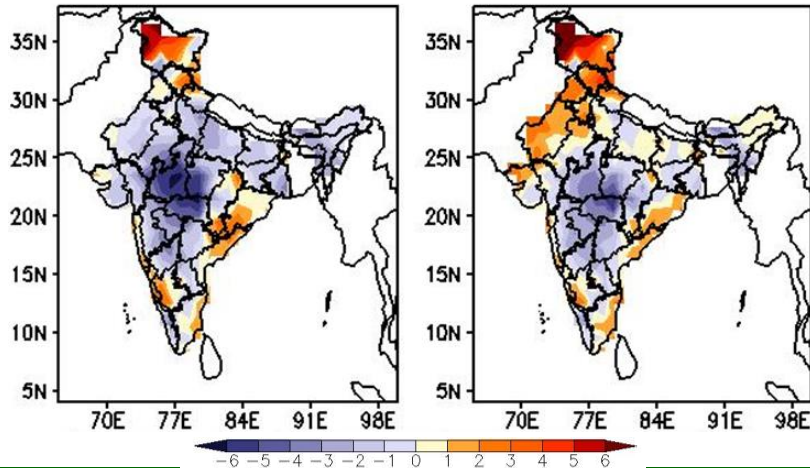
- **Week 1 (01.03.2024 to 07.03.2024) and Week 2 (08.03.2024 to 14.03.2024):** Rainfall associated with the Western Disturbance is likely over many parts of Northwest India and some parts of Northeast India.

**Maximum and Minimum temperature anomaly ( $^{\circ}\text{C}$ ) forecast  
for the next 2 weeks (IC- 07<sup>th</sup> February, 2024)  
(09<sup>th</sup> to 22<sup>nd</sup> February, 2024)**

**MME forecast Tmax anomaly (Deg C)**

(Week1: 09Feb-15Feb)

(Week2: 16Feb-22Feb)



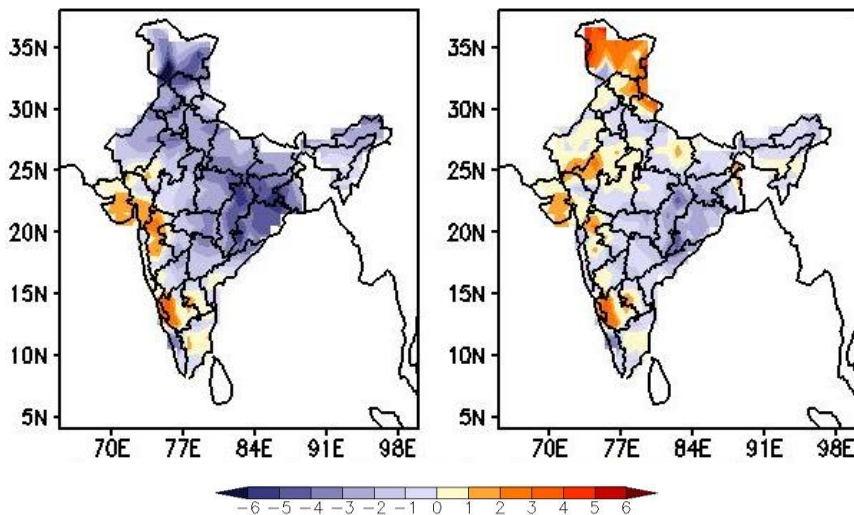
**Maximum Temperature (T max)**

- **Week 1 (09.02.2024 to 15.02.2024):** Maximum temperature is likely to be below normal over most parts of the country except some parts of Jammu & Kashmir, Himachal Pradesh, Odisha, Coastal Andhra Pradesh, Tamil Nadu and Karnataka.
- **Week 2 (16.02.2024 to 22.02.2024):** Maximum temperature is likely to be above normal over many parts of North West India and some parts of Odisha, Coastal Andhra Pradesh, Tamil Nadu and Karnataka. However, it is likely to be below normal over Central India.

**MME forecast Tmin anomaly (Deg C)**

(Week1: 09Feb-15Feb)

(Week2: 16Feb-22Feb)



**Minimum Temperature (T min)**

- **Week 1 (09.02.2024 to 15.02.2024):** Minimum temperature is likely to be below normal over most parts of the country except some parts of Gujarat, Maharashtra and Karnataka.
- **Week 2 (16.02.2024 to 22.02.2024):** Minimum temperature is likely to be below normal over most parts of East and Central India. However, it is likely to be above normal over many parts of North India, North West India and Karnataka.

## Strategic Agricultural Planning based on rainfall till 07 March 2024

### Agromet Advisories

#### Uttar Pradesh

11 mm (456% large excess) rainfall received over Western Uttar Pradesh and rainfall received over Eastern Uttar Pradesh was 7 mm (382% large excess) during 01 March - 03 March 2024. The extended range weather forecast (rainfall) for the next two weeks (01 - 07 March 2024 and 08 - 14 March 2024) is above normal over Western Uttar Pradesh and Eastern Uttar Pradesh during week 1 and; below normal over Western Uttar Pradesh and Eastern Uttar Pradesh during week 2.

#### *Western Uttar Pradesh*

- As per the forecast of above-normal rainfall in this week, farmers are advised to postpone irrigation in wheat (flowering/anthesis and milking stage) and barley crops (anthesis/ milking/ dough).
- Due to the chances of above-normal rainfall in this week, farmers are advised to make arrangements of excess water rainwater drainage and harvest mature mustard crop store in a safer place.
- Due to high day and night temperatures during this week, there is a chance of pod borer in the pea crop. To manage, it is advised to spray Fenvalerate 20% EC @ 2.0 litres or Novaluron 10% EC @ 750 ml/ ha with 500 to 600 litres of water solution in clear sky weather.

#### Himachal Pradesh

80 mm (533% large excess) rainfall was received over Himachal Pradesh during 01 March - 03 March 2024. The extended range weather forecast (rainfall) provided for the next two weeks (01 - 07 March 2024 and 08 - 14 March 2024) over Himachal Pradesh is above normal for week 1 and; normal for week 2.

- Maintain room temperature 25 - 28° C and relative humidity around 80 - 85% for successful cultivation of mushrooms.
- In the plains as well as lower hills of the state, farmers are advised to go for the sowing of sunflower with recommended varieties is *EC 68415*. The crop should be sown using a seed rate of 8-10 kg/ha (400 g/kanal) and at a spacing of 50 cm x 25 cm (row x plant)
- The weather is suitable for the attack of pink eye disease in newlyborn calves. For control, prepare the solution of 1% boric acid in boiled water and wash eyes at regular intervals of three hours.
- Nursery preparation is advised for chilies, tomato and brinjal crops in poly house. Further in lower hills, farmers are also advised to go for sowing of cucumber, bitter guard, bottle guard as well as other cucurbits.

#### Jammu

70 mm (375% large excess) rainfall was received over Jammu during 01 March - 03 March 2024. The extended range weather forecast (rainfall) provided for the next two weeks (01 - 07 March 2024 and 08 - 14 March 2024) over Jammu is above normal for week 1 and; normal for week 2.

- Due to the chances of above-normal rainfall in this week, farmers are advised to make arrangements to drain out excess rainwater from fields so that rainwater does not stagnate in fields.
- Due to the chances of rainfall, farmers are advised to postpone the direct sowing of vegetable crops till the soil remains in *vattar* conditions.

- Farmers are advised to monitor zinc deficiency in wheat crops, if yellow patches develop between the mid-vein and edge of young to middle leaves, spray Zinc sulphate @ 0.2% during clear weather after receipt of rain.
- Farmers who have prepared their cucurbit nursery in a poly bag under protection may go for transplanting in the main field keeping in view the dry weather conditions only.

### **Rajasthan**

4 mm (388% large excess) rainfall was received over East Rajasthan during 01 March - 03 March 2024. The extended range weather forecast (rainfall) provided for the next two weeks (01 - 07 March 2024 and 08 - 14 March 2024) over East Rajasthan is above normal for week 1 and; normal for week 2.

- Start the sowing of summer groundnut with improved varieties are *TAG-24*, *DH-86*, *GG-2* and *Pratap raj* groundnut. Use seed rate 100-120 kg/ha. Seed should be treated with Thiram @ 3 g/kg
- Due to root rot in garlic, farmers are advised to spray Carbendazim 12% + Mancozeb 63% WP @ 300 ml/acre or Chlorothalonil 75% WP @ or 400 g/ acre or Thiophene methyl 70% W/W 300 g /acre.
- As chances of rainfall and a decrease in temperature in the coming days, farmers are advised to withhold the irrigation for a few days, preferably in mustard and gram crops.

### **Haryana**

14 mm (303% large excess) rainfall was received over Haryana during 01 March - 03 March 2024. The extended range weather forecast (rainfall) provided for the next two weeks (01 - 07 March 2024 and 08 - 14 March 2024) over Haryana is above normal for week 1 and; below normal for week 2.

- Due to the forecast of above-normal rainfall in this week, farmers are advised to avoid irrigation in wheat crop or application of fertilizers and not allow water to stagnate in the field.
- Farmers are also advised to keep regular watch at their fields because this weather is favourable for the development of white rust disease and the incidence of mustard aphids. In the early stage of incidence, destroy the infested part of the plant.
- Harvest the cucurbits and other vegetables like tomato, chilli, brinjal and okra at regular intervals to get maximum yield.
- To minimise the damage due to standing water in maize crop fields, it is advised for two sprays of 3 per cent Urea solution at weekly intervals or by applying additional nitrogen @ 12-24 kg (25-50 kg urea) per acre in case of moderate to severe damage after the flooding is over.

### **West Bengal**

No rainfall was received over Gangetic West Bengal and rainfall received over Sub Himalayan West Bengal was 0.5 mm (-86% large deficit) during 01 March - 03 March 2024. The extended range weather forecast (rainfall) for the next two weeks (01 - 07 March 2024 and 08 - 14 March 2024) is below normal over Gangetic West Bengal and Sub-Himalayan West Bengal during week 1 and; week 2.

- Due to the forecast of below-normal rainfall water stress may occur in tomato crop and cause flower drop. To control, it is advised to apply a timely and required amount of irrigation. Spray Boron 20% 2 gram/lit during early flowering and 15 days later.

### **Bihar**

0.8 mm (-40% deficit) rainfall was received over Bihar during 01 March - 03 March 2024. The extended range weather forecast (rainfall) provided for the next two weeks (01 - 07 March 2024 and 08 - 14 March 2024) over Bihar is normal for week 1 and; below normal for week 2.

- Land preparation is advised for the sowing of green gram (mung bean) and black gram (urd). *Pusa Vishal, Samrat, SML-668, Sona, HUM-16* varieties for mung bean and Pant Urd-19, Pant Urd-31, Uttra and Navin varieties for urd are recommended for sowing in North Bihar.
- Present weather is conducive for the spread of the aphid population in late sown mustard, cauliflower, cabbage etc. If the aphid population exceeds ETL, spraying of Dimethoate 30EC @ 1.0 ml/litre of water is advised.
- Sowing of summer maize is advised. *Suwan, Deevki, Ganga-11, Shaktiman-1,2,3,4 and Shaktiman-5* varieties are recommended for sowing in North Bihar. Application of 10-15-ton FYM, 40 kg Nitrogen, 40 kg Phosphorus and 30 kg Potash per hectare is advised during land preparation.

### **Jharkhand**

0.6 mm (-40% deficit) rainfall was received over Jharkhand during 01 March - 03 March 2024. The extended range weather forecast (rainfall) provided for the next two weeks (01 - 07 March 2024 and 08 - 14 March 2024) over Jharkhand is below normal for week 1 and; week-2.

- Under irrigation conditions, farmers are advised to cultivate high-yielding varieties of maize with recommended varieties viz., *BAUMH-3, BAUMH-5, HQPM -1, HQPM -1* (Hybrid) with a recommended dose of fertilizer.
- Under prevailing weather conditions, there may be a chance of infestation of late blight in tomatoes. To manage, it is advised to spray Metalaxyl 8% + Mancozeb 64% WP @ 400-g/acre at 10 days interval

### **Assam**

No rainfall was received over Assam during 01 March - 03 March 2024. The extended range weather forecast (rainfall) provided for the next two weeks (01 - 07 March 2024 and 08 - 14 March 2024) over Assam is below normal for week 1 and; week 2.

- Maintain standing water at 5±2 cm depth in the boro rice field after 2-3 days of transplanting. Topdressing of urea @ 6 kg/bigha is advocated after 25 days of transplanting.
- Continue sowing of seeds of ridge gourd and sponge gourd in the main field. Select varieties like *Pusa Nashdar* or local varieties like *AAUJ-1* for ridge gourd and *Pusa Chkni* in the case of sponge gourd.
- Under prevailing weather conditions, it is advised to go for top dressing of urea in boro rice, and undertake land preparation operations in case of green gram, black gram, okra, ridge gourd and sponge gourd.

### **Chhattisgarh**

0.3 mm (-76% large deficit) rainfall was received over Chhattisgarh during 01 March - 03 March 2024. The extended range weather forecast (rainfall) provided for the next two weeks (01 - 07 March 2024 and 08 - 14 March 2024) over Chhattisgarh is below normal rainfall for week 1 and; week 2.

- Due to increased temperature, farmers are advised to give irrigation in summer rice, sugarcane and, maize crops as per need.
- Inter-culture, fertilizer application, and earthing followed by irrigation are advised in sugarcane crops at knee height stage.
- Looking to the present weather conditions, farmers are advised to sow of cucurbitaceous crop in the bag. Sowing of leafy vegetables and land preparation for the summer vegetables is also advised.
- Timely sown chickpea crop is in the maturity stage. Therefore, farmers are advised to harvest mature crops.

### **Odisha**

No rainfall received over Odisha during 01 March - 03 March 2024. The extended range weather forecast (rainfall) provided for the next two weeks (01 - 07 March 2024 and 08 - 14 March 2024) over Odisha is below normal for week 1 and; week-2.

- Due to the temperature rise there are chances of an increase in stem borer infestation in paddy crop. To manage stem borer in paddy, broadcast granular insecticide Chlorantraniliprole 0.4 % GR @ 4 kg/acre or Cartap hydrochloride 4 G @ 8-kg acre by mixing it with sand at 1:1 ratio or spray Chlorantraniliprole 18.5 % SC @ 60-ml/acre.
- Due to the rise in atmospheric temperature there are chances of infestation of thrips and aphids in groundnut crop. To manage aphids and thrips spray Neem-based pesticide (Azadirachtin) 300 ppm @ 1-litre /acre during the primary stage of infestation. If the infestation is severe than spray Thiamethoxam 25% WG @ 40 g/acre or Imidacloprid 17.8% SL @ 50 ml/acre by mixing it in 200 litres of water.
- Transplanting of vegetables is advised during afternoon hours to avoid high temperatures.

### **Maharashtra**

0.4 mm (-45% deficit) rainfall over Madhya Maharashtra; 0.4 mm (-82% large deficit) rainfall over Vidarbha; no rainfall over Marathwada; and in Konkan region was recorded during 01 March - 03 March 2024. The extended range weather forecast (rainfall) for the next two weeks (01 - 07 March 2024 and 08 - 14 March 2024) is below rainfall over Konkan and Vidarbha, and normal rainfall over Madhya Maharashtra and Marathwada for week-1 and No rainfall over Konkan and Vidarbha, and below normal rainfall over Madhya Maharashtra and Marathwada for week-2, respectively.

### **Parbhani**

- As per forecast of light to moderate rainfall along with thunderstorms during this week, harvesting of timely sown and mature wheat crop and *rabi* sorghum is advised and store the harvested produce at safe places. Cover the harvested produce with the help of polyethene/tarpaulin.



- As per the increase in maximum temperature, irrigation management is advised in late sown *rabi* sorghum and wheat crops during grain filling stage (90 to 95 DAS).

#### *Vidarbha*

- Due to the forecast of below-normal rainfall, farmers are advised to ensure to avoid moisture stress in standing field crops/vegetables/fruit orchards during their growth stages. Farmers are recommended to follow micro-irrigation systems for irrigation, which may reduce excessive use of water.
- Under prevailing dry weather conditions, harvesting and threshing of matured chickpea, wheat and other crops is advised. Ensure safe storage of harvested produce. If threshing is not possible then it is also advised to cover the harvested produce properly.

#### *Madhya Maharashtra*

- Application of NAA (Planofix 20 ppm @ 40 ml in 200 lit water) is suggested for reducing flower and fruit drop in mango.
- Under prevailing weather conditions, it is advised to complete the sowing of summer vegetables.

#### **Kerala**

59 mm (287% large excess) received over Kerala during 01 March - 03 March 2024. The extended range weather forecast (rainfall) for the next two weeks (01 - 07 March 2024 and 08 - 14 March 2024) is below normal for week 1 and; normal for week 2.

- Since dry and hot weather is prevailing and forecast for normal rainfall during this week, farmers are advised to irrigate the crops as per need to ensure adequate soil moisture. Proper mulching is advised to follow to conserve soil moisture. Adopt drip irrigation method for maximum water use efficiency.
- Sesamum, cowpea, and vegetables is advised to cultivate after *Mundakkal* rice harvest, if sufficient moisture is available in the field. Growing pulses or vegetables after rice harvest helps to increase soil fertility and also reduces pests and diseases in subsequent crops of rice.
- Due to the increase in atmospheric temperature, the attack of sucking pests was increased. To control, it is advised to apply 2% neem oil emulsion once in a week or by spraying *Lecanicillium lecanii* at 20 gm per litre of water.

#### **Andhra Pradesh**

No rainfall received over Rayalaseema and coastal Andhra during 01 March - 03 March 2024. The extended range weather forecast (rainfall) provided for the next two weeks (01 - 07 March 2024 and 08 - 14 March 2024) is no rainfall over Rayalaseema and Coastal Andhra Pradesh for week 1 and; below normal rainfall Rayalaseema and over coastal Andhra Pradesh for week-2.

- In view of no rain and deficit rainfall and above normal maximum temperatures conditions for this week next next week in Andhra Pradesh, farmers are advised to give frequent irrigations to the groundnut crop (pod formation stage) based on soil conditions.
- Under prevailing weather conditions, farmers are also advised to take up irrigation to mango crops to avoid the fruit dropping.
- Prevailing weather conditions are favourable for the incidence of fall armyworm in maize. To control the fall armyworm, spraying of Chlorantraniliprole ml or Emamectin benzoate @ 0.4 g per litre of water is suggested.

### **Karnataka**

No rainfall was received over South Interior Karnataka, Coastal Karnataka and North Interior Karnataka during 01 March - 03 March 2024. The extended range weather forecast (rainfall) provided for the next two weeks (01 - 07 March 2024 and 08 - 14 March 2024) is below normal over North Interior Karnataka and South Interior Karnataka and above normal over Coastal Karnataka for week 1 and; below normal over North Interior Karnataka and South Interior Karnataka and normal over Coastal Karnataka for for week-2.

#### *North Interior Karnataka*

- As no rainfall is forecast during this week, farmers are advised to provide protective irrigation to the late-sown crops.
- Harvest the matured crops like pigeon pea, groundnut, sorghum, wheat, safflower, sunflower and sugarcane crops.
- To control citrus canker disease cut the affected parts then spray 3 g Copper oxychloride 50 WP and 0.5 g Streptomycin sulphate or 1% Bordeaux mixture in every litre of water.

#### *South Interior Karnataka*

- Warm humid weather and low night temperatures are favourable for the development of powdery mildew in mango. To control powdery mildew in mango, it is advised to spray Lambda Cyhalothrin 5 EC @ 0.5 ml/ litre of water or sulphur dust (SULTAF) 80 W @ 3 g/litre of water.
- Farmers are advised for one or two protective irrigation at the marble stage to protect fruit drop at this stage.
- Carry out threshing of the harvested crops, the grains should be dried by retaining the moisture percentage of cereals to 11-12 %.

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