



राष्ट्रीय कृषि मौसम परामर्शी सेवाएं बुलेटिन  
**National Agromet Advisory Services Bulletin**

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

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जारीकर्ता / Issued by

अखिल भारतीय समन्वित कृषि-मौसम विज्ञान अनुसंधान परियोजना

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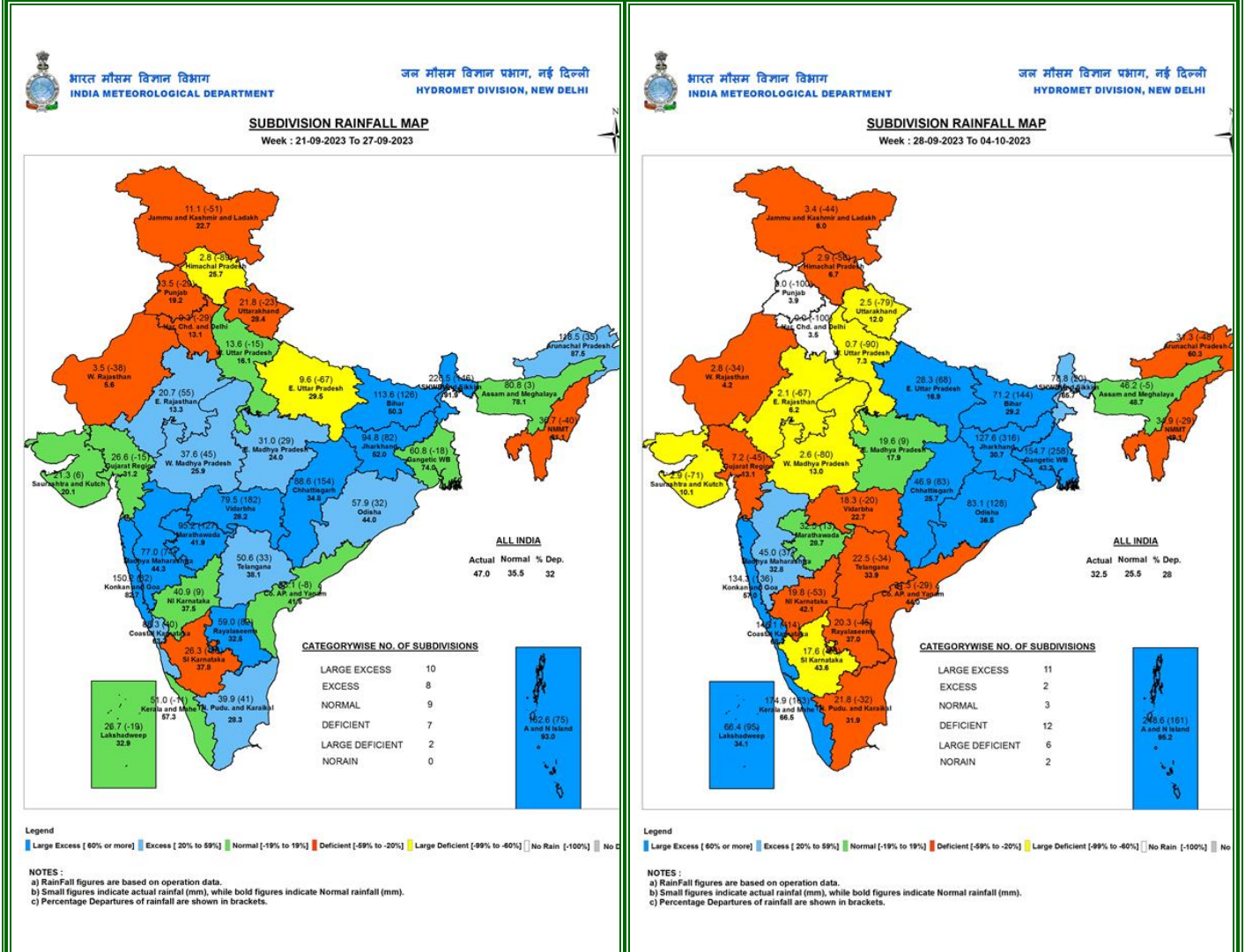
पृथ्वी प्रणाली विज्ञान संगठन

**Earth System Science Organization**

# Realized Rainfall and Extended Range Forecast

## Realized Rainfall

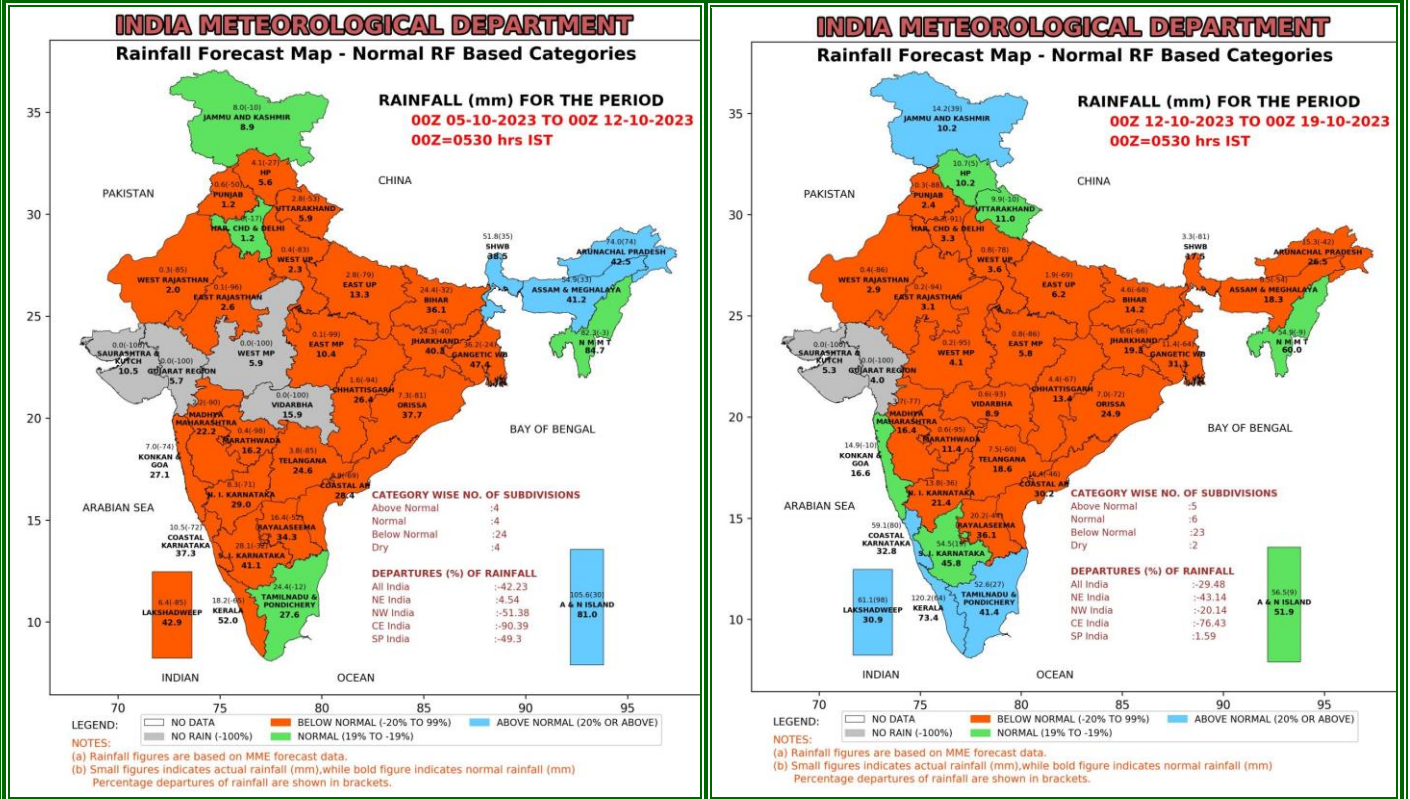
(21<sup>st</sup> September to 04<sup>th</sup> October, 2023)



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

## Extended Range Forecast System

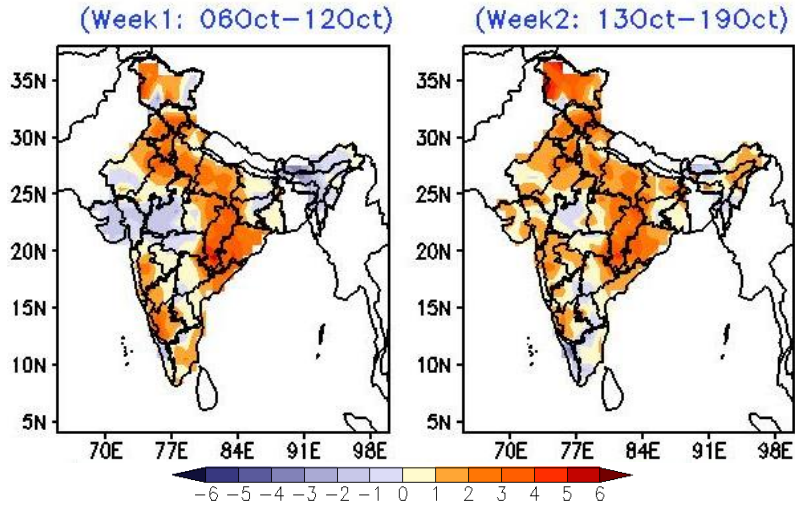
### Rainfall forecast maps for the next 2 weeks (IC- 04<sup>th</sup> October) (06<sup>th</sup> to 19<sup>th</sup> October, 2023)



- **Week 1 (06.10.2023 to 12.10.2023):** Rainfall is likely to be normal to above normal in North East India. Mainly dry weather is likely over remaining parts of the country.
- **Week 2 (13.10.2023 to 19.10.2023):** Rainfall is likely to be normal to above normal over parts of Peninsular India and West Coast. Mainly dry weather is likely over remaining parts of the country.

**Maximum and Minimum temperature anomaly ( $^{\circ}\text{C}$ ) forecast  
for the next 2 weeks (IC- 04<sup>th</sup> October)  
(06<sup>th</sup> to 19<sup>th</sup> October, 2023)**

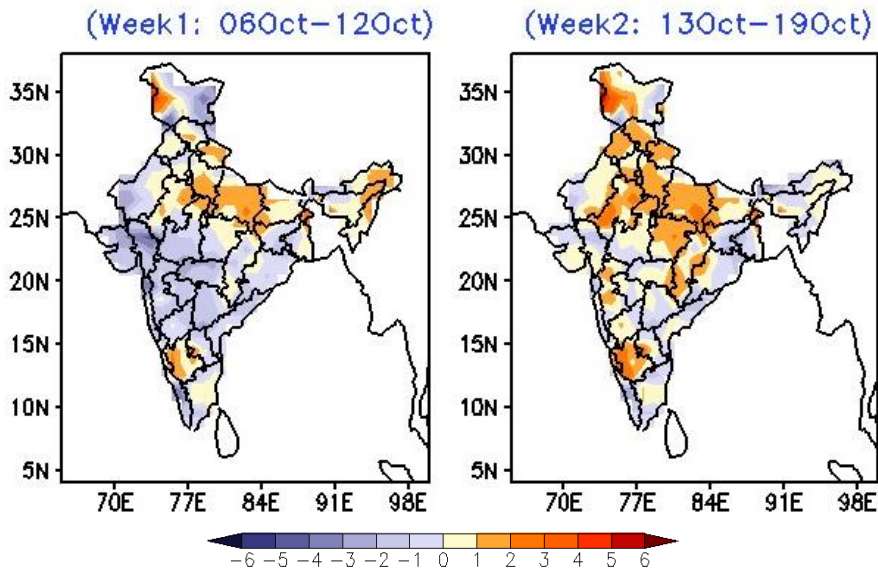
**MME forecast Tmax anomaly (Deg C)**



**Maximum Temperature (Tmax)**

- **Week 1 (06.10.2023 to 12.10.2023):** Tmax is likely to be above normal over most parts of the country except North East India and some parts of west India.
- **Week 2 (13.10.2023 to 19.10.2023):** Tmax is likely to be above normal over most parts of the country.

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



**Minimum Temperature (Tmin)**

- **Week 1 (06.10.2023 to 12.10.2023):** Tmin is likely to be above normal over parts of the North and North East India.
- **Week 2 (13.10.2023 to 19.10.2023):** Tmin is likely to be normal to above normal over most parts of the country.



## Strategic Agricultural Planning based on rainfall till 19 October 2023

### Agromet Advisories

#### Uttar Pradesh

The amount of rainfall received over East Uttar Pradesh was 33 mm (183% large excess) and over West Uttar Pradesh was 0.7 mm (-88% large deficit) during 01 - 05 October 2023. The extended range weather forecast (rainfall) for the next two weeks (06 -12 October 2023 and 13 -19 October 2023) is below normal over West Uttar Pradesh and East Uttar Pradesh for week-1 and week-2.

#### *Western Uttar Pradesh*

- The milk and dough stages of the paddy are highly susceptible to moisture stress. To manage this, it is essential to ensure a consistent water level of 3 to 5 cm in the field during these critical stages.
- Farmers are advised to harvest mature sesame and *kharif* maize crops, as clear weather is expected during next week.
- Due to 15.7 mm rainfall occurred during last week, there is no irrigation required in pigeon pea (vegetative/branching stage) and sorghum crop (flowering stage).

#### *Eastern Uttar Pradesh*

- The late sown maize crop is at milking to grain filling stage, which is sensitive to moisture stress, farmers are advised to provide light irrigation as per requirement to maintain proper moisture in the field.
- If leaf roller insect observed in pigeon pea crop which is at vegetative/branching stage, then farmers are advised to spray Fenitrothion 50 EC 2.0 litre/ha with 500 to 600 litres of water.

#### Uttarakhand

2.1 mm (-75% large deficit) rainfall was received over Uttarakhand during 01 - 05 October 2023. The extended range weather forecast (rainfall) provided for the next two weeks (06 -12 October 2023 and 13 -19 October 2023) over Uttarakhand is below normal for week-1 and normal for week-2.

- It is recommended to sow mustard/toria, wheat and barley in the high hill regions of Uttarakhand.
- Farmers are advised to keep continuing the sowing of the onion nursery. Seed treatment should be applied before sowing of seeds. Avoid over watering.
- Use dry grass as mulch between rows to help conserve soil moisture in vegetable pea crop field.

#### Himachal Pradesh

3 mm (-35% deficit) rainfall was received over Himachal Pradesh during 01 - 05 October 2023. The extended range weather forecast (rainfall) provided for the next two weeks (06 -12 October 2023 and 13 -19 October 2023) over Himachal Pradesh is below normal for week-1 and; normal for week-2.

- Under prevailing weather condition, farmers are advised to harvest paddy during clear weather condition.
- In mid hills of the state sowing of early season pea varieties is advised. The varieties recommended are *Palam Triloki, Arkel, VL-7 and Matar Ageta*.
- It is also the optimum time for the sowing of oats for fodder purpose. The varieties recommended are *Palampur-1* and *Kent*.
- Nursery sowing of following vegetables is advised:
  - Cauliflower (late varieties): *PSB-1, K-1, KT-25, Pusa subhra*, Hybrids (*Sweta, Maharani, Lucky, Madhuri and White Gold* etc.)
  - Cabbage: *Golden Acre, Pride of India, Pusa Mukta* Hybrids (*Varun, Bahar*)
  - Knol Khol: *White Vienna, Purple Vienna, Palam Tender Knob*
  - Broccoli: *Palam Samridhi, Palam Vachitra, Palam Kanchan, Palam Haritika*
  - Chinese Cabbage: *Palampur Green*

### **Punjab**

No rainfall was received over Punjab during 01 - 05 October 2023. The extended range weather forecast (rainfall) provided for the next two weeks (06 -12 October 2023 and 13 -19 October 2023) over Punjab is below normal for week-1 and; week-2.

- As dry weather expected during next week, farmers are advised to harvest the mature rice and maize crops during clear weather condition.
- As dry weather is expected during coming days, farmers are advised to undertake picking of cotton.
- Due to the forecast of below normal rainfall during next two weeks, farmers are advised to irrigate vegetable crops at weekly intervals.
- It is the optimum time for sowing of late season varieties and transplanting of mid-season varieties of cauliflower.

### **Jammu**

3.4 mm (-14% deficit) rainfall was received over Jammu during 01 - 05 October 2023. The extended range weather forecast (rainfall) provided for the next two weeks (06 -12 October 2023 and 13 -19 October 2023) over Jammu is normal for week-1 and; above normal for week-2.

- Sowing of gobi sarson (*RSPN-25, GSC7, GSL-1 and DGS-1*) is recommended. Farmers may also go for thinning and hoeing in 15-20 days old toria crop to provide proper spacing.
- Under prevailing weather condition, it is advised to harvest the early sown rice and maize during clear weather condition.
- Farmers are recommended to plough and level fields that have become empty after maize harvest to conserve moisture and prepare them for the upcoming *rabi* crop.

### **Assam**

58 mm (68% large excess) rainfall was received over Assam during 01 - 05 October 2023. The extended range weather forecast (rainfall) provided for the next two weeks (06 -12 October 2023 and 13 -19 October 2023) over Assam is above normal for week-1 and below normal for week 2.

- As rainfall occurred during last week and forecast of above normal rainfall during next week, farmers are advised to download “MAUSAM” app for weather forecast and “DAMINI” app for lightning alert, intending to help save lives of humans as well as livestock.
- Under prevailing weather condition, it is advised to provide staking to vegetable crop and drain out excess amount of water from low lying crop field.
- And it is also advised, to adopt climate resilient technologies like- adoption of submergence tolerant varieties. Go for weather-based crop insurance.
- As forecast of above normal rainfall during next week, farmers are advised to repair the bunds in the paddy fields to conserve rain water and maintain standing water of 5±2 cm depth in the rice field.
- It is also advised to postpone top-dressing of urea fertilizer in standing rice crop due to forecast of above normal rainfall during next week.
- As rainfall is forecasted in most of the districts of Assam during this week, farmers may postpone the land preparation for sowing of maize. As soon as rainfall recedes, farmers may go for final land preparation followed by sowing of seeds. The optimum sowing window is from mid-September to mid-October.
- Continuous rainfall and water stagnation may lead to red rot in sugarcane. To avoid this, it is advised to drain out excess water, rogue affected plants and remove old and dry leaves from the cane.

### **Jharkhand**

130 mm (539% large excess) rainfall was received over Jharkhand during 01 - 05 October 2023. The extended range weather forecast (rainfall) provided for the next two weeks (06 -12 October 2023 and 13 -19 October 2023) over Jharkhand is below normal for week-1 and week 2.

- Due to the heavy rainfall occurred during past week, farmers are advised to drain out excess water from the rice field (PI stage) and maintain about 5-10 cm standing water during. Also apply second top of top dressing of urea @ 17 kilogram per acre in clear weather.
- Timely sown maize is at cob initiation stage, it is advised to maintain proper drainage channel in the field.
- Second weeding is advised in timely sown pigeon pea crop (50 to 55 days old) and in late sown (25 to 30 days old) first weeding is recommended.

## **Bihar**

85.2 mm (339% large excess) rainfall was received over Bihar during 01 - 05 October 2023. The extended range weather forecast (rainfall) provided for the next two weeks (06 -12 October 2023 and 13 -19 October 2023) over Bihar is below normal for week-1 and week 2.

- Monitoring of khaira disease is advised in late transplanted paddy. If symptoms occur, spraying of zinc sulphate @ 5.0 kg mixed with lime @ 2.5 kg in 500 litres of water is advised for one hectare cropped area.
- Transplanting of mid duration varieties of cauliflower such as *Pusa aghani*, *Pusi*, *Patna men*, *Pusa synthetic-1*, *Pusa shubhra*, *Pusa sarad*, *Pusa medhna*, *Kaasi kuwari* and *early snowball* is advised.
- Nursery sowing of early varieties of cabbage is advised. *Pride of India*, *Golden Acre*, *Pusa mukta*, *Pusa agate* and *early drum head* varieties of cabbage are recommended for sowing under North Bihar agro climatic condition.

## **West Bengal**

152 mm (408% large excess) rainfall received over Gangetic West Bengal and rainfall received over Sub Himalayan West Bengal was 118 mm (170% large excess) during 01 - 05 October 2023. The extended range weather forecast (rainfall) for the next two weeks (06 -12 October 2023 and 13 -19 October 2023) is below normal over Gangetic West Bengal and above normal over Sub-Himalayan West Bengal during week-1 and; below normal over Gangetic West Bengal and Sub-Himalayan West Bengal for week-2.

- Due to the heavy rainfall occurred in past week, farmers are advised to make proper drainage channels in the vegetable field to avoid crop damage due to water logging.
- After cessation of rain there is a chance of soil born fungal disease stem rot in vegetables. For controlling stem rot, farmers are advised to spray Chlorothalonil @ 2 g/litre of water.

## **Chhattisgarh**

28 mm (59% excess) rainfall was received over Chhattisgarh during 01 - 05 October 2023. The extended range weather forecast (rainfall) provided for the next two weeks (06 -12 October 2023 and 13 -19 October 2023) over Chhattisgarh is below normal for week-1 and; week-2.

- Nursery sowing of vegetables like cauliflower, cabbage and early varieties of knolkhol is advised.
- Earthing up in the banana plantations is advised.
- Short duration rice is in flowering stage and if 50% of flowering occurs, then farmers are advised for application of third dose of nitrogenous fertilizer. Farmers are advised to go for 25% potash top dressing to increase rice grain quantity and quality.

## **Madhya Pradesh**

14 mm (4% excess) rainfall was received over Madhya Pradesh during 01 - 05 October 2023. The extended range weather forecast (rainfall) provided for the next two weeks (06 -12 October 2023 and 13 -19 October 2023) over Madhya Pradesh is below normal for week-1 and; week-2.



- Farmers are advised to harvest June sown crops like soybean, mung, urd, sesame and maize crops and keep it under shade area.
- Farmers are advised to transplant the seedlings of onion, chilli and brinjal in the field preferably on raised bed. Also, prepare the nursery for cauliflower and cabbage.
- Due to forecast of above normal rainfall, farmers are advised to drain out excess water from the nursery beds. Transplant seedlings of onion, chilli and brinjal in the field, preferably on raised bed. Also, preparation of nursery for cauliflower, cabbage is advised.

### **Odisha**

69 mm (152% large excess) rainfall received over Odisha during 01 - 05 October 2023. The extended range weather forecast (rainfall) provided for the next two weeks (06 -12 October 2023 and 13 -19 October 2023) over Odisha is below normal for week-1 and; week-2.

- The present high humid weather condition is favourable for brown plant hopper and white backed plant hopper infestation in paddy. To manage, it is advised to avoid excess use of nitrogenous fertilizer. Do not keeping standing water in the field for longer period. Alter the micro-climate of the rice field by alternate wetting and drying technique. Make alleys at 6 feet spacing for sunlight entry and proper aeration below the crop zone.
- Farmers are advised to maintain about 5-10 cm standing water during panicle initiation stage in paddy. Remove the weeds and keep the field clean.
- If paddy crop is affected by submergence then it is advised not to apply nitrogenous fertilizer immediately and wait for new tiller to come.

### **Gujarat**

0.8 mm (-89% large deficit) rainfall received over Gujarat during 01 - 05 October 2023. The extended range weather forecast (rainfall) provided for the next two weeks (06 -12 October 2023 and 13 -19 October 2023) over Gujarat is no rainfall for week-1 and week-2.

- Deep ploughing and light pruning are advised as per size of tree and thickness of branches in old age mango trees.

### **Maharashtra**

21 mm (-12% deficit) rainfall over Madhya Maharashtra; 5 mm (-74% large deficit) rainfall over Vidarbha; 8 mm (-65% large deficit) rainfall over Marathwada; and 72 mm (84% large excess) in Konkan region was recorded during 01 - 05 October 2023. The extended range weather forecast (rainfall) for the next two weeks (06 -12 October 2023 and 13 -19 October 2023) is below normal over Konkan, Madhya Maharashtra and Marathwada and no rainfall over Vidarbha for week-1 and; normal over Konkan and below normal over Madhya Maharashtra, Marathwada and Vidarbha for week-2, respectively.

### *Vidarbha*

- Due to forecast of below normal rainfall, farmers are advised to harvest early sown soybean crop during clear weather condition.

- Due to the recent rains, weed infestation in the pigeon pea field observed. To manage, hoeing or weeding is advised.

#### *Madhya Maharashtra*

- Sowing of *rabi* sorghum is advised at proper field capacity at the depth of 5 cm. Select the cultivars as per the soil type.
- Light Soil: *Phule Anuradha, Phule Yashomati, Phule Mauli*.
- Medium soils: *Phule Suchitra, Phule Chitra, Phule Mauli, Parabhani Moti*.
- Heavy soils: *Phule Vasudha, Phule Yashoda, Phule Mauli.PKV Kranti*.
- Under protective irrigation: *Phule Revati, Phule Vasudha*.

#### *Parbhani*

- As rainfall received during past week sucking pest may observed in cotton crop which is at square formation/flowering to boll development stage. For management it is advised to spray Flonicamid 50% WG @ 60 g or Buprofezin 25% SC @ 400 ml or Dinotefuran 20% WG @ 60 g or Diafenthiuron 50% WP @ 240 g per acre.
- For the management of leaf roller in timely sown pigeon pea, spraying of 5% NSKE or Azadirachtin 1500 ppm @ 30 ml or Quinalphos 25% EC 20 ml per 10 litres of water is advised.

#### **Kerala**

88 mm (82% large excess) received over Kerala during 01 - 05 October 2023. The extended range weather forecast (rainfall) for the next two weeks (06 -12 October 2023 and 13 -19 October 2023) is below normal for week-1 and; above normal for week-2.

- Proper mulching is advised to conserve soil moisture.
- Under prevailing weather condition, there is a chance of downy mildew attack in cucurbitaceous vegetables. To control, it is advised to spray 2.5 gm Mancozeb per one litre of water under the leaves.

#### **Anantapur**

3 mm (-90% large deficit) rainfall was received over Rayalaseema and 12 mm (-66% large deficit) rainfall was received over Coastal Andhra Pradesh during 01 - 05 October 2023. The extended range weather forecast (rainfall) provided for the next two weeks (06 -12 October 2023 and 13 - 19 October 2023) is below normal over Rayalaseema and Coastal Andhra Pradesh for week-1 and; week-2.

- Due to the forecast of below normal rainfall, farmers are advised to take up foliar spray of KNO<sub>3</sub> @ 5 grams per litre of water to mitigate the adverse effect of dry spell.
- Farmers are advised to form dead furrows or conservation furrows after last intercultivation in flat method of sowing to conserve the moisture.

- Present weather conditions are favourable for the incidence of pink boll worm in cotton grown in Srikakulam, Vizianagaram and Krishna districts. To control, farmers are advised to spray Profenophos @ 2 ml or Thiodicarb 1.5 g/litre of water.

### **Karnataka**

9.2 mm (-71% large deficit) rainfall received over South Interior Karnataka, 60.5 mm (16% excess) over Coastal Karnataka and 8.5 mm (-72% large deficit) rainfall received over North Interior Karnataka during 01 - 05 October 2023. The extended range weather forecast (rainfall) provided for the next two weeks (06 -12 October 2023 and 13 -19 October 2023) is below normal over North Interior Karnataka, Coastal Karnataka and South Interior Karnataka for week-1 and; below normal over North Interior Karnataka and normal over South Interior Karnataka and above normal over Coastal Karnataka for week-2.

#### *South Interior Karnataka*

- Intercultural operation recommended conserving soil moisture and remove of weeds.
- Mulching is recommended for conserve the soil moisture in standing crops.
- Earthing up is advised for better availability of soil moisture to the crop rows through conversion of the land into ridges and furrow system.
- Wherever over population of crop plants is existing, thinning operation is advised for better availability of scarce soil moisture to the reduce population of crop plants.

#### *North Interior Karnataka*

- As there is a forecast of below normal rainfall during next week, it is advised to provide protective irrigation to the *kharif* crops.
- Sowing of sunflower and sorghum crops is advised.

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