



राष्ट्रीय कृषि मौसम परामर्शी सेवाएं बुलेटिन  
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विस्तारित अवधि मौसम पूर्वानुमान/Extended Range Weather Forecast (ERFS)

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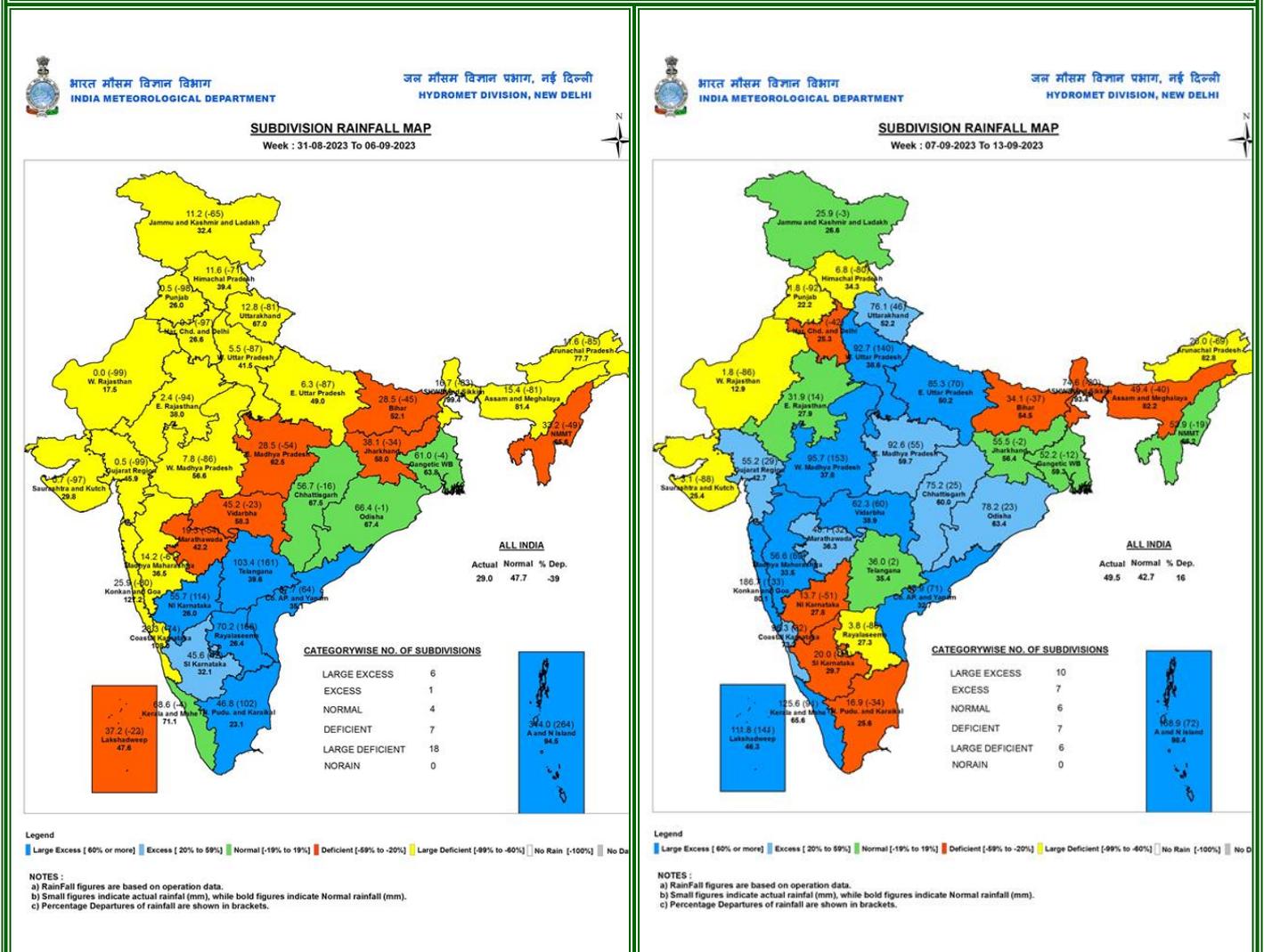
पृथ्वी प्रणाली विज्ञान संगठन

**Earth System Science Organization**

# Realized Rainfall and Extended Range Forecast

## Realized Rainfall

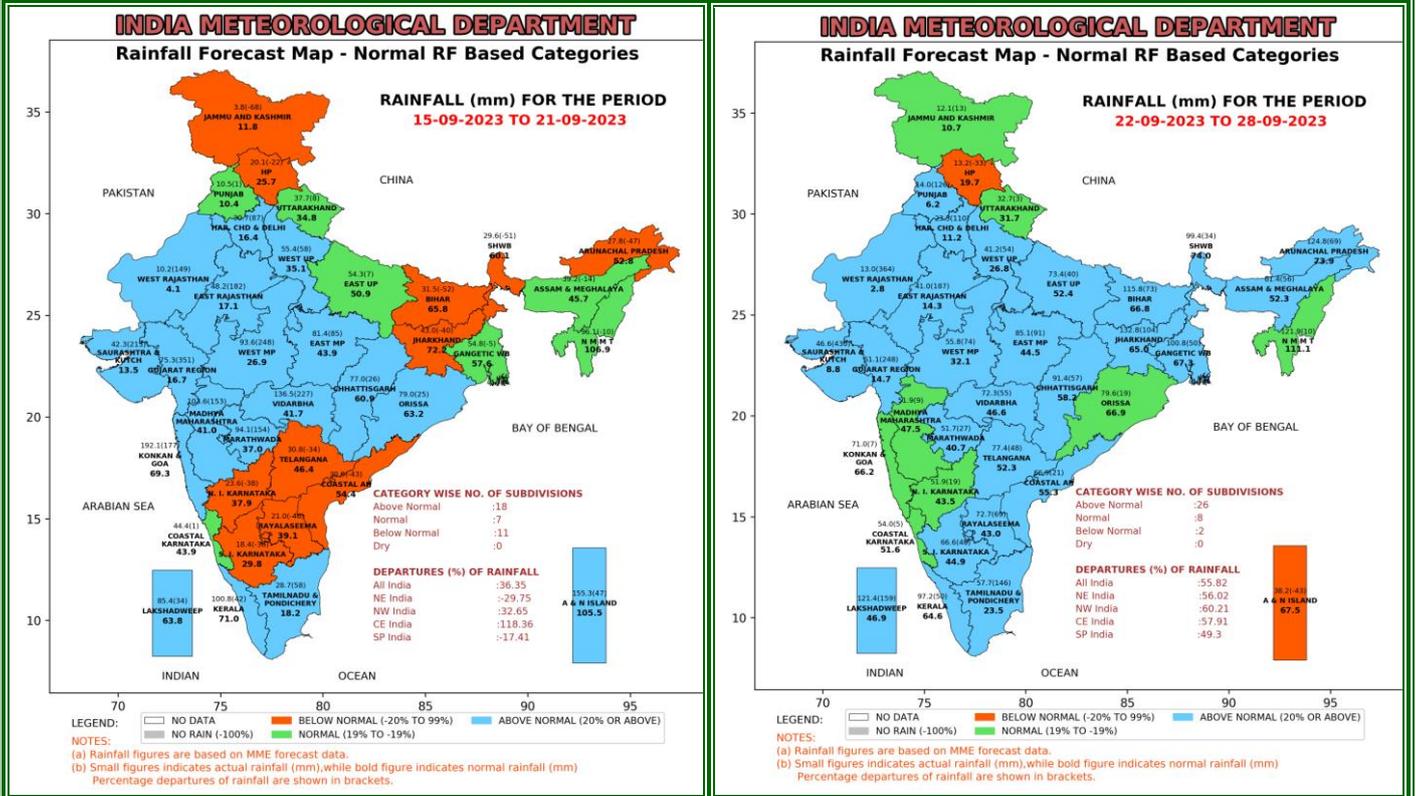
(31<sup>st</sup> August to 13<sup>th</sup> September, 2023)



- Normal or above normal rainfall occurred in both the weeks over Gangetic West Bengal, Odisha, Chhattisgarh, Telangana, Coastal Andhra Pradesh & Yanam, Kerala & Mahe and Andaman & Nicobar Islands.
- Normal or above normal rainfall occurred in either of the two weeks over Jammu & Kashmir and Ladakh (UTs), Uttarakhand, Uttar Pradesh, Jharkhand, Nagaland Manipur Mizoram & Tripura (NMMT), Gujarat Region, East Rajasthan, Madhya Pradesh, Maharashtra, Karnataka, Rayalaseema, Tamil Nadu Puducherry & Karaikal and Lakshadweep.
- Below Normal rainfall occurred in both the weeks over rest of the country.

## Extended Range Forecast System

### Rainfall forecast maps for the next 2 weeks (IC- 13<sup>th</sup> September) (15<sup>th</sup> September to 28<sup>th</sup> September, 2023)



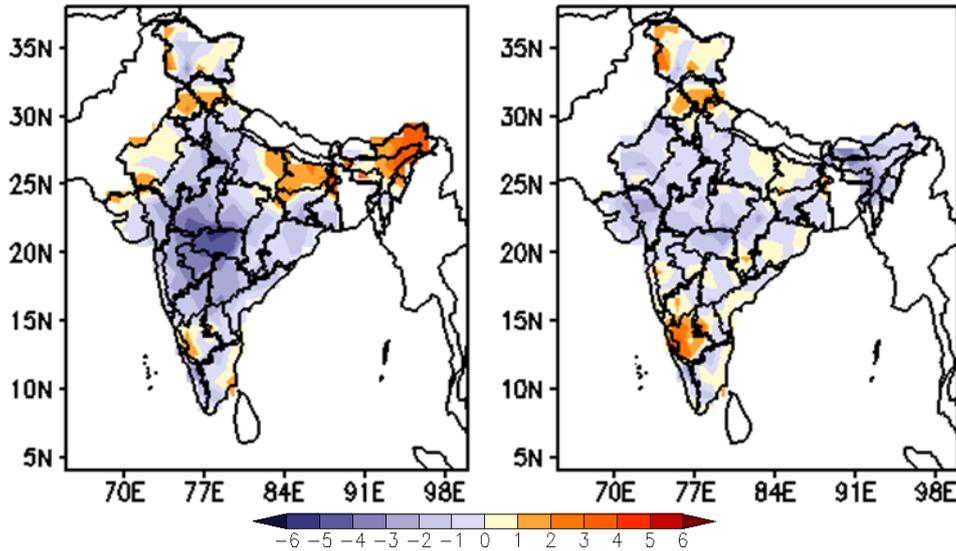
- **Week 1 (15.09.2023 to 21.09.2023):** Rainfall is likely to be above normal over central India and parts of Northwest India and along west coast.
- **Week 2 (22.09.2023 to 28.09.2023):** Rainfall is likely to be normal to above normal over most parts of the country.

**Maximum and Minimum temperature anomaly ( $^{\circ}\text{C}$ ) forecast  
for the next 2 weeks (IC- 13<sup>th</sup> September)  
(15<sup>th</sup> September to 28<sup>th</sup> September, 2023)**

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

(Week1: 15Sep–21Sep)

(Week2: 22Sep–28Sep)



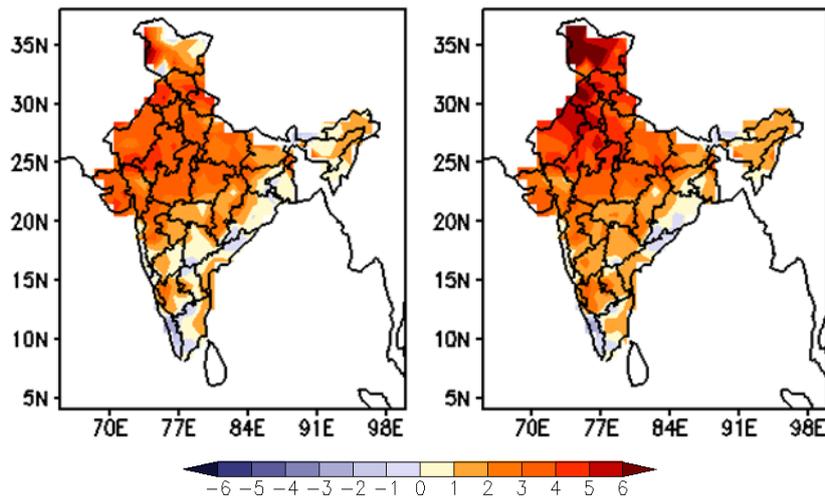
**Maximum Temperature (Tmax)**

- **Week 1 (15.09.2023 to 21.09.2023):** Tmax is likely to be slightly above normal over North East India and some parts of East India.
- **Week 2 (22.09.2023 to 28.09.2023):** Tmax is likely to be slightly above over some parts of Karnataka.

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

(Week1: 15Sep–21Sep)

(Week2: 22Sep–28Sep)



**Minimum Temperature (Tmin)**

- **Week 1 (15.09.2023 to 21.09.2023) and Week 2 (22.09.2023 to 28.09.2023):** Tmin is likely to be above normal over most parts of the country.

## Strategic Agricultural Planning based on rainfall till 28 September 2023

### Agromet Advisories

#### Uttar Pradesh

The amount of rainfall received over East Uttar Pradesh was 548 mm (-25% deficit) and over West Uttar Pradesh was 660 mm (5% excess) during 01 June - 14 September 2023. The extended range weather forecast (rainfall) for the next two weeks (15 - 21 September 2023 and 22 - 28 September 2023) is above normal over West Uttar Pradesh and normal over East Uttar Pradesh for week-1 and; above normal over West Uttar Pradesh and East Uttar Pradesh for week-2.

#### *Western Uttar Pradesh*

- Due to forecast of above normal rainfall during next week, farmers are advised not to irrigate the *kharif* crops and drain out excess water from the field.
- For the management of shoot borer in maize crop which is at milking stage, it is advised to spray Dimethoate 30 % EC @ 1ml/liter of water (660ml/ha) or Emamectin benzoate 5 % SG @ 0.4g/liter water (200g/ha) in clear sky.
- Farmers are advised for top dressing of remaining dose of Urea in sugarcane crop which is at vegetative stage under proper moisture condition in the field.

#### *Eastern Uttar Pradesh*

- Withhold irrigation considering the above normal rainfall forecast in this week. Farmers are advised to drain out excess water from the field and crop protect from birds.
- Prevailing weather is congenial for stem borer infestation in paddy (tillering/pre-flowering stage). To control, it is advised to spray Chlorantraniliprole 18.5% SC @ 150 ml/ha and Azadirachtin 0.03% 1000 ml/ha.

#### Uttarakhand

1151 mm (5% excess) rainfall was received over Uttarakhand during 01 June - 14 September 2023. The extended range weather forecast (rainfall) provided for the next two weeks (15 - 21 September 2023 and 22 - 28 September 2023) over Uttarakhand is normal for week-1 and; week-2.

- Due to forecast of light to moderate rainfall during next two weeks, it is advised to harvest the mature crops and keep it in safer place and make proper water drainage in vegetables and pulse crop field.
- In view of rain forecast during next week, application of pesticides, fertilizers and irrigation is not recommended.

#### Himachal Pradesh

825 mm (20% excess) rainfall was received over Himachal Pradesh during 01 June - 14 September 2023. The extended range weather forecast (rainfall) provided for the next two weeks (15 - 21 September 2023 and 22 - 28 September 2023) over Himachal Pradesh is below normal for week-1 and normal for week-2.

- In low hills of the state, transplanting of mid – season cauliflower varieties (*Palam Uphar*, *Improved Japanese* and *F1 Megha*) is advised.
- 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*.
- Farmers are advised for harvesting of mature vegetables at morning and evening hours and after harvesting the crops keep it in the shade and ensure proper drainage in vegetable crops.

### **Punjab**

357 mm (-13% deficit) rainfall was received over Punjab during 01 June - 14 September 2023. The extended range weather forecast (rainfall) provided for the next two weeks (15 - 21 September 2023 and 22 - 28 September 2023) over Punjab is normal for week-1 and; above normal for week-2.

- Due to forecast of light to moderate rainfall along with light to strong wind, farmers are advised not to irrigate and not to spray any pesticide.
- Farmers are also advised to drain out the excess water from the fields of maize, cotton, vegetables, and orchards.
- To manage rodent pests in rice crop, cover all the holes during evening and next day place 10 -10 gm bait of Zinc phosphide inside these fresh holes at 6 inches depth. To get better results adopt this practice in whole village at same time.
- It is the optimum time for planting of evergreen pants such as citrus, guava, mango, litchi, sapota, jamun, bael, amla etc.

### **Rajasthan**

533 mm (-11% deficit) rainfall was received over East Rajasthan during 01 June - 14 September 2023. The extended range weather forecast (rainfall) provided for the next two weeks (15 - 21 September 2023 and 22 - 28 September 2023) over East Rajasthan is above normal for week-1 and; week-2.

- Keeping in the view of rainfall forecast in next two weeks, farmers are advised to do proper arrangement for storing rain water at one portion in the field so that this water can be used for irrigation in the crops at suitable time like during dry spell.
- Nursery raising of cabbage and cauliflower is advised.

### **Jammu**

533 mm (4% excess) rainfall was received over Jammu during 01 June - 14 September 2023. The extended range weather forecast (rainfall) provided for the next two weeks (15 - 21 September 2023 and 22 - 28 September 2023) over Jammu is below normal for week-1 and; normal for week-2.

- Farmers are advised to sow direct sown vegetables like methi, spinach beet, coriander, radish, carrot, beetroot and spinach within the first fortnight of September for good germination and crop stand.
- Due to forecast of below normal rainfall during next week, farmers are advised to give irrigation as per requirement of crop.

### **Assam**

1313 mm (-18% deficit) rainfall was received over Assam during 01 June - 14 September 2023. The extended range weather forecast (rainfall) provided for the next two weeks (15 - 21 September 2023 and 22 - 28 September 2023) over Assam is normal for week-1 and above normal for week 2.

- Farmers are advised to go for need based weeding and top dressing with Urea @ 4.5 kg per bigha in semi dwarf medium and long duration sali rice varieties which are at tillering stage. In case of tall, medium and long duration varieties the dose of urea for top dressing should be 1.5 kg per bigha.
- Nursery sowing of mid-season varieties of cauliflower like *Improved Japanese*, *Pusa Synthetic*, *Pusa Snowball* etc. under shed-nets or poly houses can be continued.
- High temperature followed by continuous rainy weather is congenial for stem borer and leaf folder infestation in *Sali* paddy at tillering stage. If more than 1 damaged leaf/hill (in case of leaf folder) and 1 egg mass per square meter (in case of stem borer) is observed in the field, immediately spray Thiamethoxam 25 WG @ 100 g/ha (0.2gram/litre of water) or Fipronil 5 SC @ 1000 ml/ha (2ml per litre of water) of land, under fair weather.

### **Jharkhand**

606 mm (-34% deficit) rainfall was received over Jharkhand during 01 June - 14 September 2023. The extended range weather forecast (rainfall) provided for the next two weeks (15 - 21 September 2023 and 22 - 28 September 2023) over Jharkhand is below normal for week-1 and above normal for week 2.

- Forecasted cloudy and humid weather favors incidence of stem borer and blast disease in rice. If the infestation happens, it is advised to spray Chlorantraniliprole 18.5% SC @ 75 ml/acre in 200 litres of water.
- For weed control in timely sown pigeon pea crop (50 to 55 days old) second weeding is advised and in late sown (25 to 30 days old) first weeding is advised.
- In rice crop, it is advised to apply second top dressing of fertilizer at Panicle Initiation stage with 17 kg of Urea and 13 kg MOP per acre in upcoming days based upon rainfall forecast.

### **Chhattisgarh**

897 mm (-14% deficit) rainfall was received over Chhattisgarh during 01 June - 14 September 2023. The extended range weather forecast (rainfall) provided for the next two weeks (15 - 21

September 2023 and 22 - 28 September 2023) over Chhattisgarh is above normal for week-1 and; week-2.

- Considering the forecast of light to moderate rainfall in coming day. Farmers are advised that impounding condition should not be of more than 5 cm. Due to excess impounding condition, number of tillers in rice crop are affected. Excess water should be drained out from the field.
- Due to the possibility above normal rainfall at some places in the Chhattisgarh Plains, the farmers are advised that to go for spray of insecticide on during clear weather condition.
- To prevent the fruit shedding in papaya plant, spraying of Naphthalene Acetic Acid (NAA) @ 20 ppm is advised.

### **Odisha**

975 mm (-7% deficit) rainfall received over Odisha during 01 June - 14 September 2023. The extended range weather forecast (rainfall) provided for the next two weeks (15 - 21 September 2023 and 22 - 28 September 2023) over Odisha is above normal for week-1 and; normal for week-2.

- Banana farmers are advised to drain out the excess water from the field and earthing up the newly planted banana. After rain apply the recommended dose of fertilizer
- Due to forecast of above normal rainfall farmers are advised to wait for clear weather and remove excess water from field, before applying any fertilizer in the field.
- Farmers are advised to make arrangement for plastic cover or polythene sheet for covering vegetables nursery like tomato, chilli and brinjal.

### **Gujarat**

719 mm (-17% deficit) rainfall received over Gujarat during 01 June - 14 September 2023. The extended range weather forecast (rainfall) provided for the next two weeks (15 - 21 September 2023 and 22 - 28 September 2023) over Gujarat is above normal for week-1 and week-2.

- Farmers are advised to carry out hoeing or intercultural operations in rainfed cotton to make soil dust mulch to conserve soil moisture, remove weeds and break soil surface crust
- To control whitefly and jassid in brinjal crop at vegetative stage, it is advised to spray Diafenthiuron 50 WP 10g or Thiamethoxam 25 WG 4 g per 10 litres of water in clear and calm weather conditions.

### **Maharashtra**

524 mm (-20% deficit) rainfall over Madhya Maharashtra; 793 mm (-9% deficit) rainfall over Vidarbha; 447 mm (-20% deficit) rainfall over Marathwada; and 2869 mm (6% excess) in Konkan region was recorded during 01 June - 14 September 2023. The extended range weather forecast (rainfall) for the next two weeks (15 - 21 September 2023 and 22 - 28 September 2023) is above normal over Konkan, Vidarbha, Madhya Maharashtra and Marathwada for week-1 and; normal over Konkan and Madhya Maharashtra and above normal over Vidarbha and Marathwada for week-2, respectively.

### *Vidarbha*

- For control of girdle beetle (10% affected plants) in soybean crop at flowering and pod formation stage, farmers are advised to spray Chlorantraniliprole 18.5% @ 3 ml per 10 litres of water.
- In cotton crop at flowering stage, monitor for presence of pink boll worm larvae within flowers. Collect and destroy rosette flowers/buds. Upon 5% infested flowers/buds it is advised to spray Quinalphos 25% AF @ 25 ml or Chlorpyrifos 20% EC @ 15 ml per 10 litres of water during clear weather condition.

### *Madhya Maharashtra*

- For the control of shoot borer in pigeon pea crop which is at vegetative stage, it is advised to apply Azadirachtin 1500 ppm @ 50 ml per 10 litres water during clear weather condition.

### *Parbhani*

- Due to rainfall and cloudy weather condition during past week, thrips may observe in cotton crop. For management, it is advised to spray 5% NSKE or Azadirachtin 1500 PPM @ 30 ml per 10 litres of water or *Lecanicillium lecanii* (Bio insecticide) 1 kg or Spinetoram 11.7% @ 420 ml per acre (0.6ml/litre) or Diafenthiuron 50 % WP @ 600 gram per acre (1gr/litre) during clear weather condition.
- Nipping operation is advised in pigeon pea crop at 55 to 60 days after sowing for more branching.
- Due to rainfall and cloudy weather condition during last few days Aphids and thrips may observed in groundnut crop. For management, it is advised to spray Imidacloprid 17.8 SL @ 0.6 ml or Quinalphos 25 EC @1.4 ml or Lambda-Cyhalothrin 5 EC @ 0.6 ml per litres of water during clear weather condition

### *Dapoli*

- Due to forecast of above normal rainfall it is advised to make arrangements to drain out excess water from standing crops, vegetables and orchards.
- Because of possibility of rainfall, it is also advised to postpone the application of fertilizers and pesticides and intercultural operations in standing crops, vegetables and orchards.

### **Kerala**

1110 mm (-41% deficit) received over Kerala during 01 June - 14 September 2023. The extended range weather forecast (rainfall) for the next two weeks (15 - 21 September 2023 and 22 - 28 September 2023) is above normal for week-1 and; week-2.

- Due to the forecast of above normal rainfall, there is a chance of damage in paddy due to flooding. Ensure drainage in paddy fields and strengthen bunds.
- If cloudy condition is prevailed, there is a chance of leaf folder attack in Paddy. It can be controlled by using Trichogramma cards (2 CC per one acre). Cut the cards in to small

pieces and fix in different regions of the field. If the infestation is severe, spray Quinalphos@25% EC @ 1 ml per one litre or Acephate 75 % SP @2gram per litre of water.

### **Tamil Nadu**

262 mm (1% excess) received over Tamil Nadu during 01 June - 14 September 2023. The extended range weather forecast (rainfall) for the next two weeks (15 - 21 September 2023 and 22 - 28 September 2023) is above normal for week-1 and; week-2.

- Weather prevailed is conducive for stem borer incidence in rice (tillering to panicle initiation stage). To control, it is advised to spray Chlorantraniliprole 18.5% SC @ 150 ml/ha or Azadirachtin 0.03% 1000 ml/ha or spray Cartap Hydrochloride 50 % SP @1 gram per litre of water.
- To avoid lodging in banana orchard, propping and earthing-up operation is advised.

### **Anantapur**

262 mm (-20% deficit) rainfall was received over Rayalaseema and 512 mm (1% excess) rainfall was received over Coastal Andhra Pradesh during 01 June - 14 September 2023. The extended range weather forecast (rainfall) provided for the next two weeks (15 - 21 September 2023 and 22 - 28 September 2023) is below normal over Rayalaseema and Coastal Andhra Pradesh for week-1 and; above normal over Rayalaseema and Coastal Andhra Pradesh for week-2.

- The present weather conditions are favourable for bacterial leaf blight incidence in pomegranate. The symptoms when observed during new growth stages, spraying of Streptocycline @ 0.5 g and Copper oxychloride @ 3 g/litre of water is recommended.
- 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.

### **Karnataka**

434 mm (-27% deficit) rainfall received over South Interior Karnataka, 2408 mm (-18% deficit) over Coastal Karnataka and 372 mm (-6% deficit) rainfall received over North Interior Karnataka during 01 June - 14 September 2023. The extended range weather forecast (rainfall) provided for the next two weeks (15 - 21 September 2023 and 22 - 28 September 2023) is below normal over North Interior Karnataka and South Interior Karnataka and normal over Coastal Karnataka for week-1 and; normal over North Interior Karnataka and Coastal Karnataka and above normal over South Interior Karnataka for week-2.

### *South Interior Karnataka*

- Take up land preparation and strengthen the bund with fodder grass which will facilitate conservation of rainwater due to monsoon showers. Ploughing across the slope will make *insitu* soil moisture conservation.
- Intercultural operation recommended conserving soil moisture and remove of weeds.
- Mulching is recommended for conserve the soil moisture in standing crops.

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