



**National Agromet Advisory Service Bulletin**  
**Based on**  
**Extended Range Weather Forecast (ERFS)**

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**&**  
**Earth System Science Organization**  
**India Meteorological Department**

**Realized Rainfall and Extended Range Forecast  
(Rainfall and Temperatures)**

**Realized Rainfall**

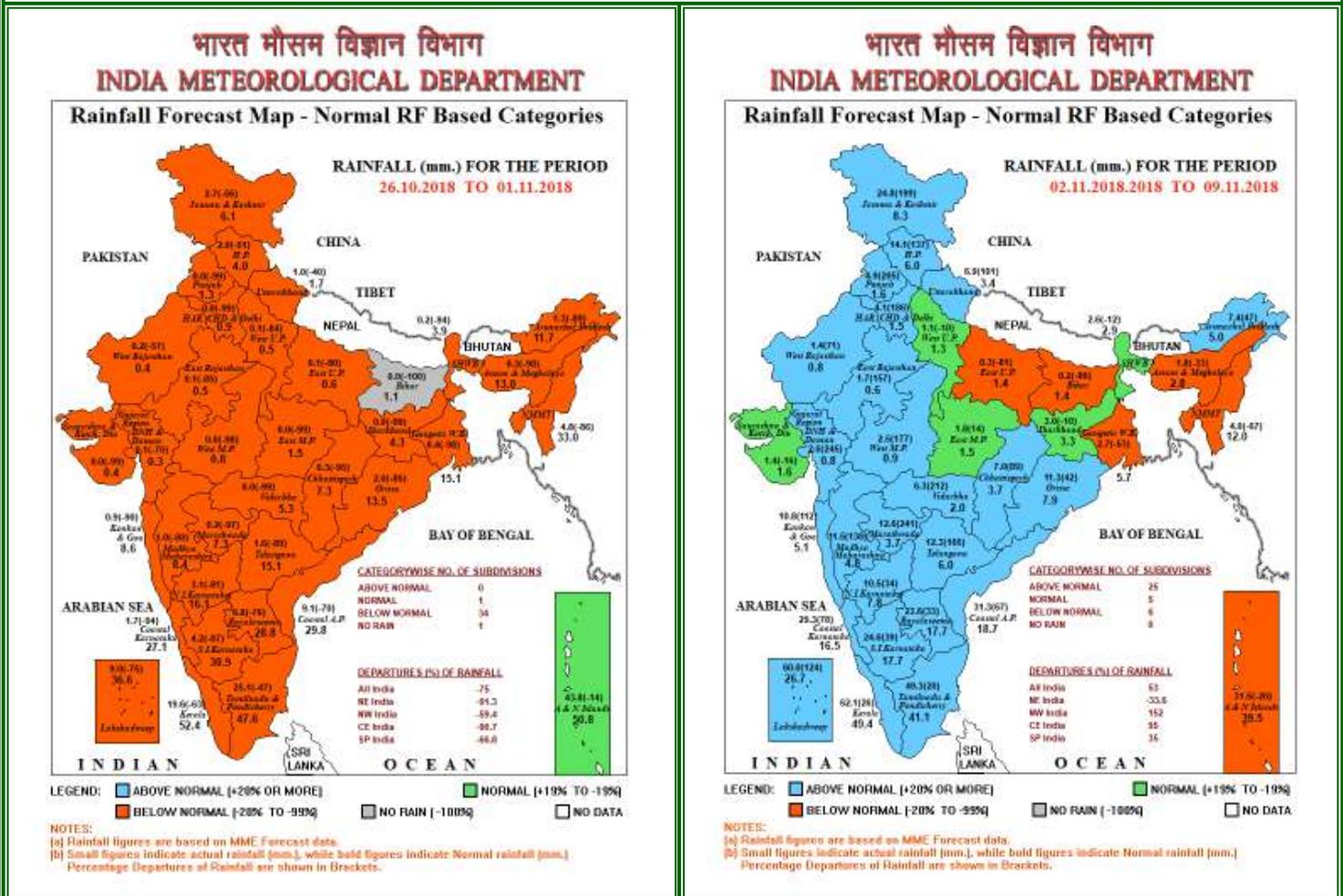
**(11<sup>th</sup> to 24<sup>th</sup> October 2018)**



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

# Extended Range Forecast System

Rainfall forecast maps for the next 2 weeks (IC – 24 October)  
(26<sup>th</sup> October to 8<sup>th</sup> November 2018)



## Extended Range Rainfall Forecast

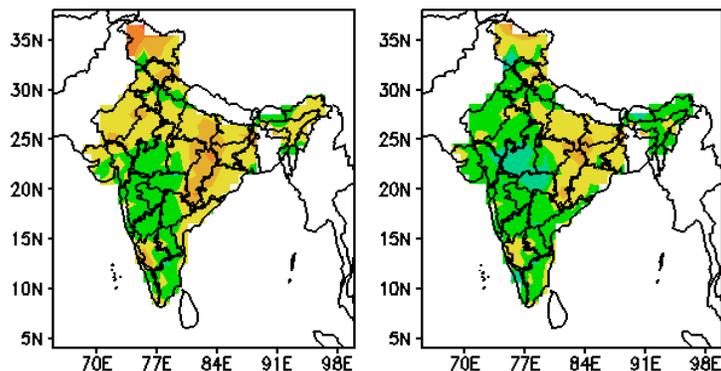
- **Week 1 (26.10.2018 to 01.11.2018):** Main rainfall likely over southern peninsula and part of south east coastal region.
- **Week 2 (02.11.2018 to 08.11.2018):** Most parts of the country are likely to get above normal rainfall.

**Maximum and Minimum temperature anomaly ( $^{\circ}\text{C}$ ) forecast  
for next 2 weeks (IC – 24 October)  
(26<sup>th</sup> October to 8<sup>th</sup> November 2018)**

**MME Bias Corrected Tmax Anomaly (Deg)**

(Week1: 26Oct–01Nov)

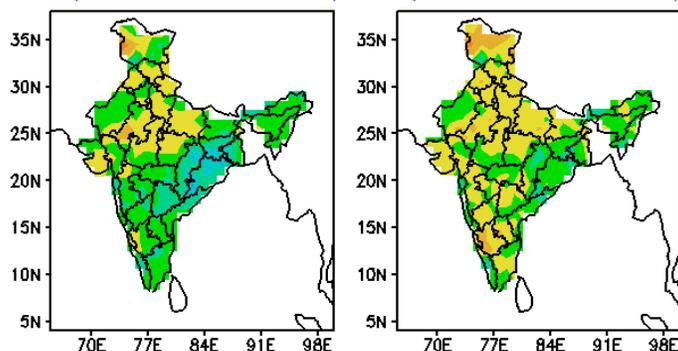
(Week2: 02Nov–08Nov)



**MME Bias Corrected Tmin Anomaly (Deg)**

(Week1: 26Oct–01Nov)

(Week2: 02Nov–08Nov)



**Maximum Temperature (Tmax)**

- **Week 1 (26.10.2018 to 01.11.2018) and Week 2 (02.11.2018 to 08.11.2018):** Tmax is likely to be mostly above normal over eastern and northern part and below normal over western part.

**Minimum Temperature (Tmin)**

- **Week 1 (26.10.2018 to 01.11.2018):** Mostly below normal Tmin likely over south peninsula, central India and eastern part of the country.
- **Week 2 (02.11.2018 to 08.11.2018):** Mostly normal Tmin likely over the country.

## Strategic Agricultural Planning based on rainfall during next two weeks till 8<sup>th</sup> November 2018

### Agromet Advisories

#### **Kerala**

Rainfall received during the period from 01 to 25 October 2018 over Kerala is 302.2 mm, which is 31% excess than normal. The extended range weather forecast provided for next two weeks (26 October to 01 November and 02 to 08 November) is below normal for week-1 and above normal for week-2.

- Ensure aeration and drainage in Banana field. Remove all the diseased and rotten leaves. A foliar spray of water soluble fertilizer, 13:00:45 @ 5 g/litre will ensure speedy recovery of crop. After 2 weeks apply FYM.
- Apply Ekalux @ 2ml/litre if the attack of pollu beetle is found severe in pepper. Drench the soil with 0.2% Copper oxy chloride and apply Bordeaux mixture as a prophylactic measure to control Quick wilt disease.
- Take necessary phyto-sanitary measures to manage capsule rot in Cardamom. To control, spray 1% Bordeaux mixture (500-1000 ml/plant). As a prophylactic measure to control rhizome rot drench the soil with 2-3 litres of copper Oxychloride (0.25%) solution.
- Green ginger can be harvested. To control soft rot infestation in ginger, drench the soil with 1% Bordeaux mixture or 0.3% mancozeb.
- This is the best time to sow cabbage and cauliflower seeds in the nursery beds. Addition of pseudomonas culture to the soil at the time of planting of cabbage and cauliflower will help to reduce fungal diseases.

#### **Karnataka**

Rainfall received during the period from 01 to 25 October 2018 over different meteorological sub-divisions of Karnataka viz, North Interior Karnataka is 39.2 mm (59% deficit), South Interior Karnataka is 99.1 mm (18% deficit) and Coastal Karnataka is 152.8 mm (2% deficit). The extended range weather forecast provided for 26 October to 01 November and 02 to 08 November over all the sub divisions of Karnataka is below normal for week-1 and above normal for week-2.

#### **North Interior Karnataka**

- Plough the land across the slope which is to be spared for sowing of Rabi crops so as to facilitate better conservation of soil and soil moisture.
- Vaccinate livestock against Foot and Mouth disease (FMD vaccination), Black Quarter disease (BC vaccination) and *Haemorrhagic septicaemia*.
- Vaccinate (ET vaccine) sheep and goats against Enterotoxemia.

#### **South Interior Karnataka**

- To control stem borer in Maize Spray Quinolphos-25 EC @ 2ml/litre of water or Chlorophyriphos -20 EC @ 2ml/litre of water.
- If pod borer noticed on red gram, spray Indoxycarb 14.5sc @ 1 ml/litre of water.

### **Tamil Nadu**

Rainfall received during the period of 01 to 25 October 2018 over Tamil Nadu is 152.7 mm, which is 11% excess as compared to the normal. The extended range weather forecast provided for next two weeks (26 October to 01 November and 02 to 08 November) is below normal for week-1 and above normal for week-2.

- As rainfall is expected in the coming days, farmers are advised to apply fertilizers to dry land crops.
- For maintaining optimum population in cotton, sorghum and pulse crops, do thinning and gap filling when adequate soil moisture is available.
- Farmers are advised to monitor army worm incidence (*Spodoptera frugiperda*) in maize. The larvae scrapping the leaves, makes small to medium elongated pin holes and causes loss of top portion of leaves. If also feeds on tassel. If symptoms were noticed, spray any one of the following pesticide to control.
  - Chlorandrinilburol - 0.3 ml/litre (or)
  - Emamexon Benzoate - 0.4 ml/litre.

### **Maharashtra**

Rainfall received during 01 to 25 October 2018 over different meteorological sub divisions of the state viz., Konkan: 49.7 mm (55% deficit), Madhya Maharashtra: 18.5 mm (74% deficit), Vidarbha: No rainfall and Marathwada: 8.2 mm (87% deficit). The extended range weather forecast provided for next two weeks (26 October to 01 November and 02 to 08 November) over all the subdivisions of Maharashtra is below normal for week-1 and above normal for week-2.

### **Marathwada**

- Picking of cotton crop should be done. To control sucking pest in cotton crop, take a spray of Clothianidin 50 % @ 40 gm or Spiromesifen 22.9% @ 240 ml per acre. Ratooning must be avoided.
- To control tur pod borer in pigeonpea crop, make use of Pheromone traps @ 5 per acre during bud initiation stage or Spray 5 % Neem seed kernel extract or Quinolphos 25 % @ 560 ml per acre.
- As per availability of water, sowing of irrigated Rabi sorghum crop should be done before 30th October after irrigating the field. Before sowing seed treatment with Imidacloprid 48 % @ 14 ml per kg should be done.

### **Konkan**

- Harvest the matured rice crop in morning hours and follow immediate threshing of rice. The threshed grains should be dried in sun for 3 to 4 days.
- Apply 50 grams of urea per bed after 15 day of sowing in rabi vegetable nursery.
- If incidence of leaf eating caterpillar, white fly, hoppers and aphids are noticed on vegetable crop nursery, spray malathion 20 ml or dimethoate 15 ml per 10 litres of water at 10 to 15 days interval.

### **Vidarbha**

- Farmers are advised to provide protective irrigation during morning/evening hours to avoid moisture stress in rainfed cotton and pigeonpea to avoid moisture stress at flowering/pod filling stage.
- Under irrigated condition chickpea (JAKI 9218, Vijay) can be sown till second fortnight of October. Seed treatment with Rhizobium+ PSB (each 25 g / kg seed) and bio fungicide Trichoderma @ 4 g per kg seed is advisable.
- To reduce fruit drop in mandarin orange, spray of 1.5 g Gibberellic acid + 1 kg Urea + 100 gm Carbendazim 50% WP per 100 litres of water, spray may be repeated after 15 days.
- Transplanting of cabbage and cauliflower and seed sowing of radish, carrot, leafy vegetables and onion nursery can be initiated during this period.

### **Madhya Maharashtra**

- Hoeing and thinning operation should be carried out in 10-15 days after sowing of rabi crops and also give protective irrigation.
- Sowing of safflower should be done upto 15 october under sufficient soil moisture condition.
- Thinning operation should be carried out in safflower and sorghum before 15 days of sowing ( 1 plant/ 20 cm)
- Install 5 pheromone traps/ha in brinjal for monitoring fruit & shoot borer. Under severe infestation, spray chlorpyrifos @ 20 ml per 10 litre water.
- To control white grub in sugarcane, apply drenching of 50 EC Chloropyrifos @1 litre + 400 litre water near sugarcane roots.

### **Chhattisgarh**

Rainfall received over Chhattisgarh during 01 to 25 October 2018 is 3.8 mm, which is 93% deficit than normal. The extended range weather forecast provided for next two weeks (26 October to 01 November and 02 to 08 November) is below normal for week-1 and above normal for week-2.

- For rabi crops, farmers can start their field operations in fallow fields. Farmers should go for sowing of chickpea, toria, horsegram, sunflower and forage crops.
- Early varieties of winter vegetables like cauliflower, cabbage and kholkhol should be selected. Nursery sowing can be done. Preparation for nursery sowing of tomato, brinjal, chillies and capsicum can be done and seed treatment by Thiram should be done @ 2 gram/ kg. seed.
- Start planting of rabi onion.
- If farmers have ready seedlings of Banana and Papaya, they may go for planting in main field.
- For protection from worms, animals should be given Albendazole/ fenbendazole.

### **Bihar**

Rainfall received over Bihar during 01 to 25 October 2018 is 17.5 mm, which is 72% deficit. The extended range weather forecast provided for next two weeks (26 October to 01 November and 02 to 08 November)

is no rain for week-1 and below normal for week-2.

- Sowing of Garlic is advised. Godawari (Selection-1), Shweta (Selection-10), Agrifound dark red (G-11), Agrifound white(G-41), Jamuna Safed-2(G-50), Jamuna Safed-3(G-282), and Jamuna Safed-4 (G-323), G-1 and RAU(G-5) varieties of garlic are recommended for sowing in north Bihar. Seed rate @ 300-500 kg claws/ha and planting distance of 15 cm x10cm is advised.
- Sowing of mustard (yellow sarson) and rai is advised. Rajendrasarson-1, 66-197-3 and Swarna varieties of mustard and Baruna, Pusa bold, Kranti and Pusamahakvarieties of rai are recommended for sowing in north Bihar region. Application of 30-40 kg nitrogen, 40 kg phosphorous, 40 kg potassium and 30-40 kg sulphur per hectare is advised during last ploughing.
- Land preparation is advised for *rabi* crops such as Potato, Gram, Rajma, Pea and rabi maize. Application of well decomposed FYM@150-200 quintal/ha is advised.

### **West Bengal**

Rainfall received over Gangetic West Bengal during 01 to 25 October 2018 is 60.9 mm, which is 45% deficit. The extended range weather forecast provided for next two weeks (26 October to 01 November and 02 to 08 November) is below normal for both the weeks.

- There is a chance of spread of sheath blight in Aman Rice. As a control, spray Carbendazim @1.5 g/litre of water. In case of stem borer attack, spray carbosulfan 25 EC @ 2ml/litre or Profenphos 40% + Cypermethrin 4% @1ml/litre of water.
- Present temperature (Tmax 33°C and Tmin 22°C ) and humidity (63%) conditions are congenial for the rapid spread of thrips and mites leading to the leaf curling in chilli. As a control spray Difenthiuron @ 0.75g per litre of water at 7-10 days interval.
- Start preparation of land for planting of potato.

### **Jharkhand**

Rainfall received over Jharkhand during 01 to 25 October 2018 is 21.8 mm, which is 69% deficit. The extended range weather forecast provided for next two weeks (26 October to 01 November and 02 to 08 November) is below normal for week-1 and normal for week-2.

- Farmer may start sowing mustard crop after preparation of the field and select the improved seed, recommended like Shiwani, Varuna, Pusa Bold, BR-40 etc. 3 kg seeds are required for cultivation in one acre. Sow the seed in line at a distance of 30 cm (Row to row) and 10 cm. (Plant to plant).
- Rainfed wheat varieties like HDR77, K-8027, C-306, Birsa genhu – 3 etc. 50 kg seeds are recommended . Seed may be sown in line at a distance of 22 cm (Row to row) and 7 cm. (Plant to plant). Before sowing seed should be treated with fungicide like Bavistin.

### **Rajasthan**

Amount of rainfall received over East Rajasthan region is 1.1 mm (93% deficit) and West Rajasthan is 0.2 mm (96% deficit) during 01 to 25 October 2018. The extended range weather forecast provided for two weeks (26 October to 01 November and 02 to 08 November) for West and East Rajasthan is below normal

for week-1 and above normal for week-2.

- Farmers are advised to harvest soybean, maize, sorghum, green gram and bajra wherever attained physiological maturity and vacate the field for sowing of rabi crops.
- Field preparation should be started for *rabi* crops. Ploughing and planking should be done properly.
- Sowing of mustard should be done with the row to row spacing of 30 cm. Use improved varieties for mustard Bio-902, Varuna, NRCHB-10, Giriraj.
- Field sanitization should be done before sowing of *rabi* crop. Bunds, channels, uncultivated fields and field roads should be cleaned by removing weeds.
- Sowing of pea should be done because delay in sowing reduces the seed yield and exposes the crop to insect damage.

### **Assam**

Rainfall received over Assam is 44.2 mm (67% deficit) during 01 to 25 October 2018. The extended range weather forecast provided for next two weeks (26 October to 01 November and 02 to 08 November) is below normal for both the weeks.

- Gandhi bug infestation may be observed in Sali rice. To control rice bug infestation, farmers are advised to apply Malathion 5% dust @ 20 kg/ha.
- Farmers are advised to sow seeds of improved brinjal varieties like Pusa Kranti, Pusa Purple Long, Pusa Purple Round, Pusa Purple Cluster, Pusa Vairab, Kuchia, Pant Samrat, JC-1, JC-1.
- Farmers are advised to prepare their lands for sowing of mustard. Apply lime at least 21 days prior to sowing of seeds and also collect high yielding variety such as M-27, TS-36, TS-38. The optimum sowing time is 20<sup>th</sup> October to 20<sup>th</sup> November for getting higher yield.

### **Haryana**

Rainfall received over Haryana is 2.9 mm rainfall (82% deficit) during 01 to 25 October 2018. The extended range weather forecast provided for next two weeks (26 October to 01 November and 02 to 08 November) is below normal for week-1 and above normal for week-2.

- Farmers are advised to procure the university recommended certified seeds and preparation of field for sowing of mustard crop.
- Farmers are advised to keep the animals under well ventilated place and provide clean drinking water and green forage as per requirement. Provide the 50 grams iodized salt and 50 to 100 grams mineral mixture daily with feed & green fodder to keep them healthy.

### **Himachal Pradesh**

Himachal Pradesh has received 11.6 mm of rainfall during 01 to 25 October 2018, which is 70% deficit. The extended range weather forecast provided for next two weeks (26 October to 01 November and 02 to 08 November) is below normal for week-1 and above normal for week-2.

- Field preparation should be completed for sowing of mustard and wheat.

- Before *rabi* crop sowing, add well decomposed FYM or compost as it improves the physical and biological properties of the
- Tomato and capsicum may be transplanted in poly-houses.
- Due to white fly and sucking pests, when yellowing of leaves or dark spots on fruits start appearing in vegetable crops, spray Imidacloprid 17.8 % SC @ 1.0 ml / 3 litre of water in clear weather.

### **Jammu**

Rainfall received during 01 to 25 October 2018 over Jammu is 22.0 mm, which is 32% deficit. The extended range weather forecast provided for next two weeks (26 October to 01 November and 02 to 08 November) over Jammu is below normal for week-1 and above normal for week-2.

- Harvest the early maturing varieties of rice when 80 per cent grains in panicle are golden colour. Sundry grains after threshing in the open to reduce moisture in the grains to safe limits (10-12%) for storage.
- Sowing of Potato (var. Kufri Badshah, K.Sinduri, K.Chipsona & K.Sona) may be taken up
- Transplant all cole crops (knol khol, cabbage, cauliflower and broccoli) without any delay.

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