



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

**Validity: 07 to 20 December 2018**

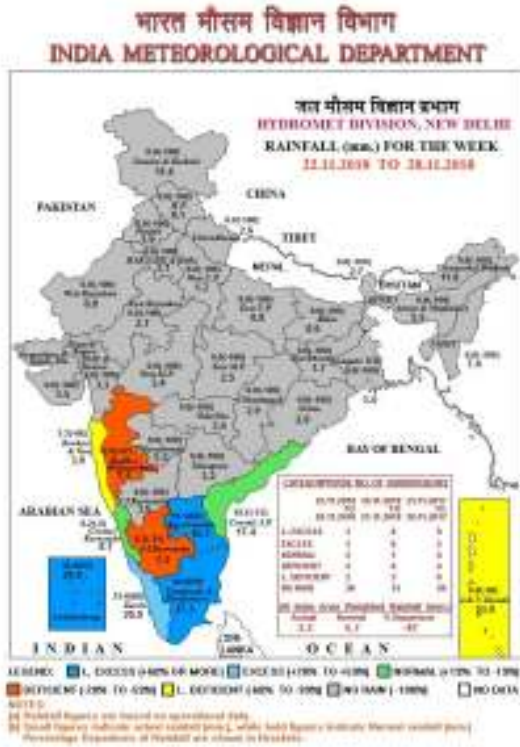
**Date of issue: 07 December 2018**

**Issued by**  
**Indian Council of Agricultural Research (ICAR)**  
**All India Coordinated Research Project on Agricultural Meteorology (AICRPAM),**  
**Central Research Institute for Dryland Agriculture (CRIDA), Hyderabad.**  
**&**  
**Earth System Science Organization**  
**India Meteorological Department**

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

### Realized Rainfall

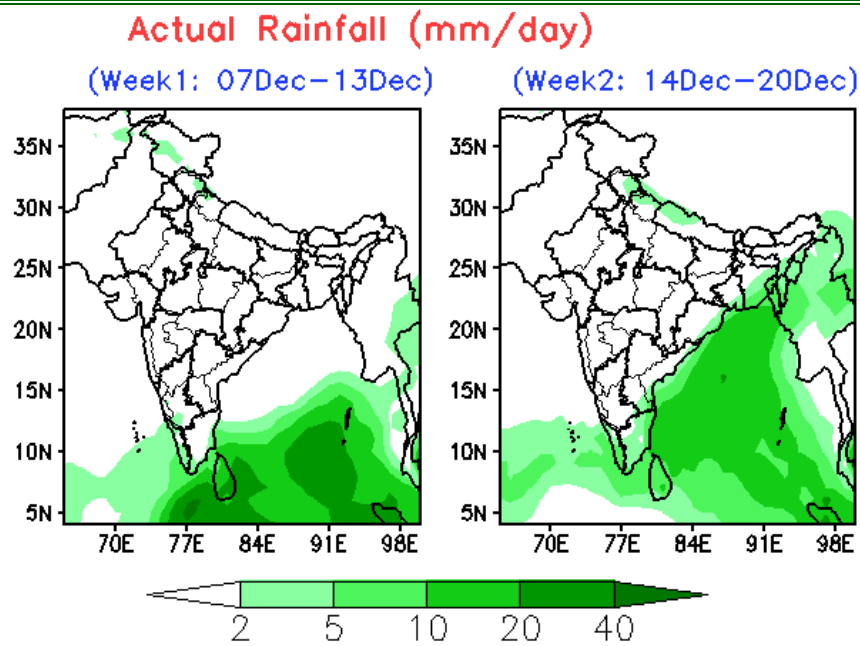
(22<sup>nd</sup> November to 5<sup>th</sup> December 2018)



- Normal or above normal rainfall occurred in either of the last two weeks in Coastal Karnataka, Kerala, Tamil Nadu, Andhra Pradesh, Andaman & Nicobar Islands and Lakshadweep.
- Below normal rainfall occurred in both the weeks in South Interior Karnataka.
- Below normal rainfall / no rain occurred in either of the two weeks in Uttarakhand, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Konkan & Goa, Madhya Maharashtra and Telangana.
- 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 – 5 December)  
(7<sup>th</sup> to 20<sup>th</sup> December 2018)



### Extended Range Rainfall Forecast

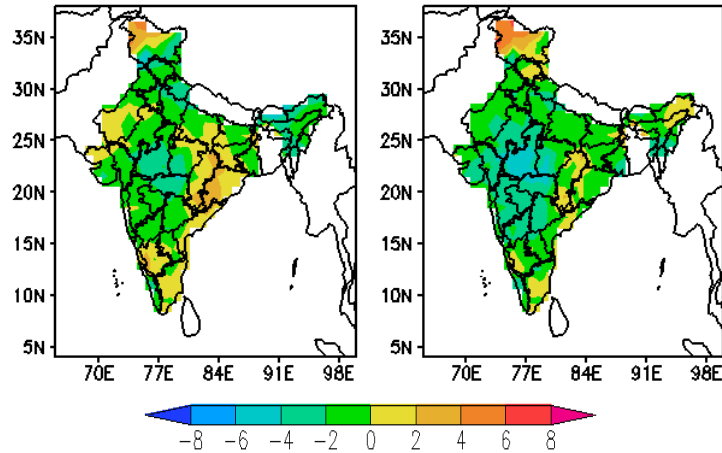
- **Week 1 (07.12.2018 to 13.12.2018):** Below normal northeast monsoon rainfall over meteorological subdivisions of southern peninsula. Rainfall will be occurring over south Bay of Bengal.
- **Week 2 (14.12.2018 to 20.12.2018):** Rainfall will be occurring in Kerala, Tamil Nadu, southern part of Andhra Pradesh, coastal Odisha, southern West Bengal and over the southern Bay of Bengal.

**Maximum and Minimum temperature anomaly ( $^{\circ}\text{C}$ ) forecast  
for next 2 weeks (IC – 5 December)  
(7<sup>th</sup> to 20<sup>th</sup> December 2018)**

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

(Week1: 07Dec–13Dec)

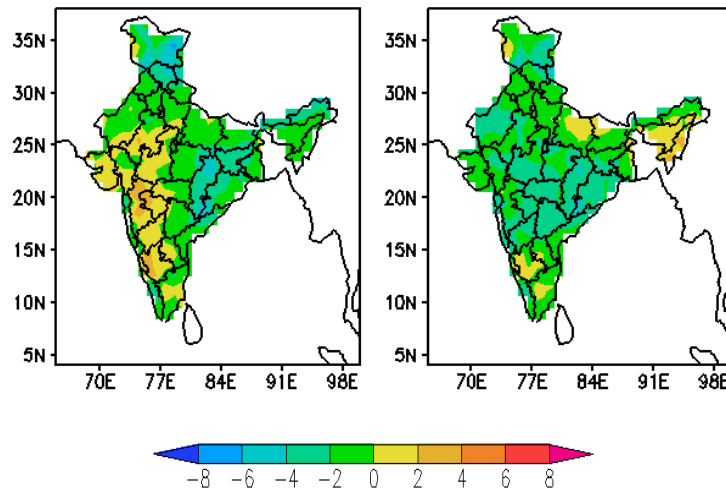
(Week2: 14Dec–20Dec)



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

(Week1: 07Dec–13Dec)

(Week2: 14Dec–20Dec)



**Maximum Temperature (Tmax)**

- **Week 1 (07.12.2018 to 13.12.2018):** Maximum temperature over Western and northern parts of India (Maharashtra and west Madhya Pradesh and north India), adjoining parts of central India and Northeast India is expected to be slightly below normal, whereas the temperature over eastern coastal region is expected to be above normal.
- **Week 2 (14.12.2018 to 20.12.2018):** Mostly below normal Tmax over India.

**Minimum Temperature (Tmin)**

- **Week 1 (07.12.2018 to 13.12.2018) and Week 2 (14.12.2018 to 20.12.2018):** Mostly below normal Tmin over the country during the period except parts of western India during week 1.

## Strategic Agricultural Planning based on rainfall during next two weeks till 20<sup>th</sup> December 2018

### Agromet Advisories

#### Kerala

Rainfall received during the period from 01 October to 06 December 2018 over Kerala is 440.8 mm, which is 3% deficit than normal.

- Plough the fields for weed control in Arecanut. Apply Bordeaux mixture against Mahali diseases. Ideal time for mulching. Keep the gardens of Arecanut clean and start irrigation.
- Green ginger can be harvested. To control soft rot, drench the soil with 1% Bordeaux mixture/0.3% Mancozeb. Application of Pseudomonas, split application of fertilizers and increased application of organic fertilizers are found to be effective in controlling the disease. Spray 0.1% Malathion to control shoot borer.
- White powdery spots are seen on the leaves of the affected plants. If any fruits are present, harvest them. Then apply 1.5 ml Tebuconazole or 0.5 ml Difenoconazole per one litre of water in cucurbitaceous crops.
- Destroy the affected leaves along with the Spodoptera in Banana. If the attack is severe, spray Quinolphos 2ml per one litre of water or Chlorantraniliprole 3 ml per 10 litre of water.

#### Karnataka

Rainfall received during the period from 01 October to 06 December 2018 over different meteorological sub-divisions of Karnataka viz, North Interior Karnataka is 47.1 mm (67% deficit), South Interior Karnataka is 120.2 mm (40% deficit) and Coastal Karnataka is 173.1 mm (32% deficit).

#### South Interior Karnataka

- Due to low temperature during night followed by morning dew the pod borer incidence was noticed in the redgram crop. If the pod borer is of big size, then go for spraying of NPV 0.75 ml per litre of water or spray Indoxacarb 14.5 SC @ 0.5 ml/litre or Spynosad 45 SC @ 0.15 ml/litre or chloropyriphos 20 EC @ 2ml/litre.

#### Tamil Nadu

Rainfall received during the period of 01 October to 06 December 2018 over Tamil Nadu is 323.0 mm, which is 13% deficit as compared to the normal.

- To control webworm in maize, spray Monochrotophos @ 1 lit/ha.
- To control stem borer in sorghum, mix Phorate 10 G 8 kg/ha with sand to make up a total quantity of 50 kg/ha and apply in the leaf whorls on rainless days.
- To control Yellow mosaic virus in pulses, foliar spray of neem formulation 3 ml/lit (or) Spray of Dimethoate 30 EC 500 ml/ha is to be taken up and repeated after 15 days, if necessary.

## **Maharashtra**

Rainfall received during 01 October to 06 December 2018 over different meteorological sub divisions of the state *viz.*, Konkan: 65.2 mm (55% deficit), Madhya Maharashtra: 38.4 mm (63% deficit), Vidarbha: 1.8mm (98% deficit) and Marathwada: 16.0 mm (83% deficit).

## **Marathwada**

- To control pod borer in pigeon pea crop, spray Chlorantraniliprole 18.5 % @ 60 ml or Chlorantraniliprole 0.3 % + Lambda cyhalothrin 4.6 % @ 80 ml per acre. Protective irrigation should be applied with an interval of 15 days.
- Ratooning must be avoided in cotton crop. Remaining plant parts should be collected and destroyed properly after final picking.
- Top dressing of nitrogen 20 kg Nitrogen (44 kg Urea) per acre should be done in one month old wheat crop. Sowing of wheat crop can be done upto 15<sup>th</sup> December. For late sowing of wheat crop, use 125 to 150 kg / ha seed rate. Row to row spacing must be 18 cm.
- To control leaf spot disease in turmeric crop, spray Mancozeb 25 gm or Carbendazim 10 gm per 10 liter of water along with sticker.

## **Madhya Maharashtra**

- For pod borer in chickpea install Helilure traps @ 5 no./ ha. If the incidence is more, spray Chlorpyrifos/ Quinolphos @ 15-20/ 10 L water
- For control of powdery mildew disease in the late pruned ber, spray 80 WP wettable sulphur 20gm and Karathane 5 ml per 10 litre water in alteration at 10 – 12 days interval.
- To control white grub in sugarcane, apply drenching of 50EC Chloropyrifos @1 litre / 400 litre water near sugarcane roots with the help of sprayer without nozal or apply granular insecticides 10% phorate / 0.3 % fipronil / 0.4 % chlorantraniloprole @ 25 kg/ ha well mixed into soil of ridges/ furrow.

## **Konkan**

- If incidence of aphids, leaf hoppers, red pumpkin beetle, leaf eating caterpillars, leaf miner is noticed on Tomato, Brinjal and Chilli crop, spray Malathion 20 ml or Dimethoate 15 ml per 10 litres of water.
- Due to increase in maximum temperature, provide irrigation to arecanut orchard at 7-8 days interval.
- Due to increase in maximum temperature, provide irrigation to coconut orchard at 6-7 days interval.

## **Vidarbha**

- Farmers are advised to undertake picking of cotton and keep picked cotton produce at dry place.
- Transplanting of brinjal, tomato, cabbage cauliflower and seed sowing of radish, carrot, leafy vegetables can be initiated during this period.

## **Bihar**

Rainfall received over Bihar during 01 October to 06 December 2018 is 17.5 mm, which is 76% deficit.

- Farmers are advised to start sowing of varieties of wheat crop viz., BW-373, HD-2285, HW-2045, HUW-234, WR-544, DBW-14, HD-2643, HD-2967, NW-2036. These are recommended for late sowing in North Bihar.
- Weeding and earthing-up are advised in early sown potato crop, which has attained the height of 15-20 cm. Give light irrigation as per need.
- Farmers are advised to complete the sowing of gram till 10<sup>th</sup> December. To protect against *Kajra caterpillar (cut worm)*, seeds should be treated with Chlorpyrifos @ 8ml/kg. Before sowing, treat the seeds with rhizobium culture (5 packets/hectare).
- Farmers are advised to remove weeds from onion nursery at the regular interval of 7-10 days. Give light irrigation after weeding. Protect the nursery seedlings from insect-pest and disease infestation.

## **Uttar Pradesh**

Amount of rainfall received over East Uttar Pradesh region is 0.4 mm (99% deficit) and West Uttar Pradesh is 7.3 mm (85% deficit) during 01 October to 06 December 2018.

- During this week, recommended varieties for late sown wheat such as HI-1563, DBW-16, K-307, K-9423, K-9533, K-9162, NW-1076 and PBW-373 are to be taken for sowing.
- Weeding and thinning should be taken up in late mustard sown crop and light irrigation should be given after 30-35 days after sowing.
- During this week, light to scattered clouds are likely to be appeared, therefore, watch for aphid attack in toria crop. If noticed, spray Chlorpyrifos 20% EC @ 1.0 lt/ha or monocrotophos 36 % S.L. @ 500 ml/ha with 500-600 litre of water solution.
- Need based irrigation should be provided in potato crop and spray mancozeb 2g/lt water for protection of frost at 10-15 days intervals.

## **West Bengal**

Rainfall received over Gangetic West Bengal during 01 October to 06 December 2018 is 70.8 mm, which is 54% deficit.

- Boro-rice: Start sowing of rice seed in nursery bed.
- Potato: No rainfall since couple of weeks, hence the soil moisture status going down and sudden lower temperature is hampering proper germination. Give light irrigation in late afternoon to keep sufficient soil moisture as well as to keep soil temperature little high .
- Vegetables (tomato, brinjal, etc): Provide irrigation.

## **Jharkhand**

Rainfall received over Jharkhand during 01 October to 06 December 2018 is 24.3 mm, which is 72% deficit.

- In 20-25 days sown wheat crop, interculture operation is essential for conserving soil moisture as well as to control weeds. After interculture operation, irrigate the field and broadcast urea @ 22 kg per acre, next day of irrigation.
- Nipping ( pruning of upper parts of the plant) should be done in gram within 30 to 40 days (before flowering) old crops. It enables the plant to bear more and more branches and subsequently flowers and pods.

## **Rajasthan**

Amount of rainfall received over East Rajasthan region is 1.4 mm (94% deficit) and West Rajasthan is 0.5 mm (94% deficit) during 01 October to 06 December 2018.

- Farmers are advised to give 1<sup>st</sup> irrigation in wheat at 21-25 days after sowing at CRI stage.
- Intercultural operations should be done in vegetables. Give the remaining doses of fertilizer in 15-25 days old crop.
- In mustard, hoeing and thinning should be done where crop is at 25 to 30 days and keep plant to plant distance 10-20 cm. Top dressing of 30 kg nitrogen along with irrigation, where the crop attained 30-35 days of age.
- Hoeing & weeding should be done in cumin.

## **Assam**

Rainfall received over Assam is 63.8 mm (66% deficit) during 01 October to 06 December 2018.

- Seeds of recommended varieties of Boro paddy like Mahsuri, IR Dinanath, Swarnabh and Kanaklata may be sown in the nursery bed during this entire month. Sowing may be delayed depending on the duration of varieties.
- Continue weeding and thinning operation in the rapeseed crop. Occurrence of saw fly may be seen in the rapeseed & mustard crop. To control this pest, spray chloropyriphos 20EC @ 5mm/litres of water.
- Farmers are advised to take preventive measures to protect the poultry from cold injury. Keep the coop clean and dry, use dry paddy straw as litter material and cover the sides of the coop with thick cloths during night.
- Attack of red ant and cut worm may be observed in the potato field . To control this pest, farmers are advised to apply phorate 10% granules @ 2kg/bigha or Malathion 5% dust @ 5kg/bigha in the soil at the time of earthing up.

## **Haryana**

Rainfall received over Haryana is 4.8 mm rainfall (79% deficit) during 01 October to 06 December 2018.

- Due to dry weather conditions, farmers are advised to complete the sowing of Barley with recommended varieties BH 393, BH 902, BH885 & BH 986. Before sowing, seeds should be treated with Bavistin or Vitavax 2.0 g /kg of seed.



- Due to dry weather conditions farmers are advised to do sowing of wheat with recommended varieties like WH 283, WH 542, DBW 17, WH 711 and WH 1105. Before sowing seeds should be treated with Bavistin or Vitavex 2.0 g / Kg of seed.
- Due to fall in night temperature keep the animals under shed. Provide 50 grams iodized salt and 50 to 100 grams mineral mixture daily with animal feed/fodder to keep them healthy.

### **Punjab**

Rainfall received over Punjab is 6.7 mm rainfall (76% deficit) during 01 October to 06 December 2018.

- It is the optimum time for transplanting of nursery of tomato and brinjal.
- Complete the sowing of European varieties of radish, turnip and carrot.
- It's time to protect the fruit plants particularly young ones from low temperature. Prepare the thatches on the young fruit plants and apply light irrigation to orchards. The plants are covered on all sides except south-west so that the plant gets sufficient sunlight.
- Ensure irrigation to ber trees as fruit is in developmental stage.

### **Himachal Pradesh**

Himachal Pradesh has received 48.9 mm of rainfall during 01 October to 06 December 2018, which is 25% deficit.

- Before sowing of rabi crops, add well decomposed FYM or compost to improve the physical, biological and water retention properties/ nutrient status of the soil.
- Farmers are advised to complete sowing of potato in lower & mid hill regions.
- Apply manures and fertilizers in mango and other orchard gardens. Wrapping of plastic sheets around mango trunk should be done for preventing climbing of young mealy bugs.

### **Jammu**

Rainfall received during 01 October to 06 December 2018 over Jammu is 99.6 mm, which is 32% excess.

- Irrigate the mustard crop if it is 35-40 days old under irrigated condition, if moisture is not sufficient, apply 1<sup>st</sup> dose of nitrogen fertilizer as top dressing after irrigation. Give hoeing, weeding and thinning.
- In onion, spray Ridomil-MZ @ 2.5gm/litre of water if downy mildew appears. Repeat the spray after 10-15 days. Spray the crop with Mancozeb @ 2.5gm/litre of water, if symptoms of purple blotch appear in crop.

**Disclaimer:** 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 forecasts. In no event will India Meteorological Department (IMD) and Indian Council of Agricultural Research (ICAR) 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 on this bulletin.