



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

**Validity: 12 to 25 October 2018**

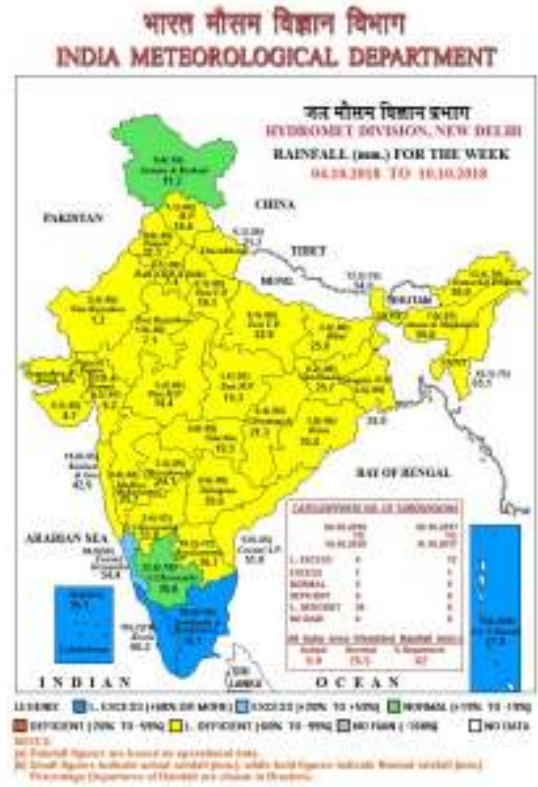
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**&**  
**Earth System Science Organization**  
**India Meteorological Department**

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

### Realized Rainfall

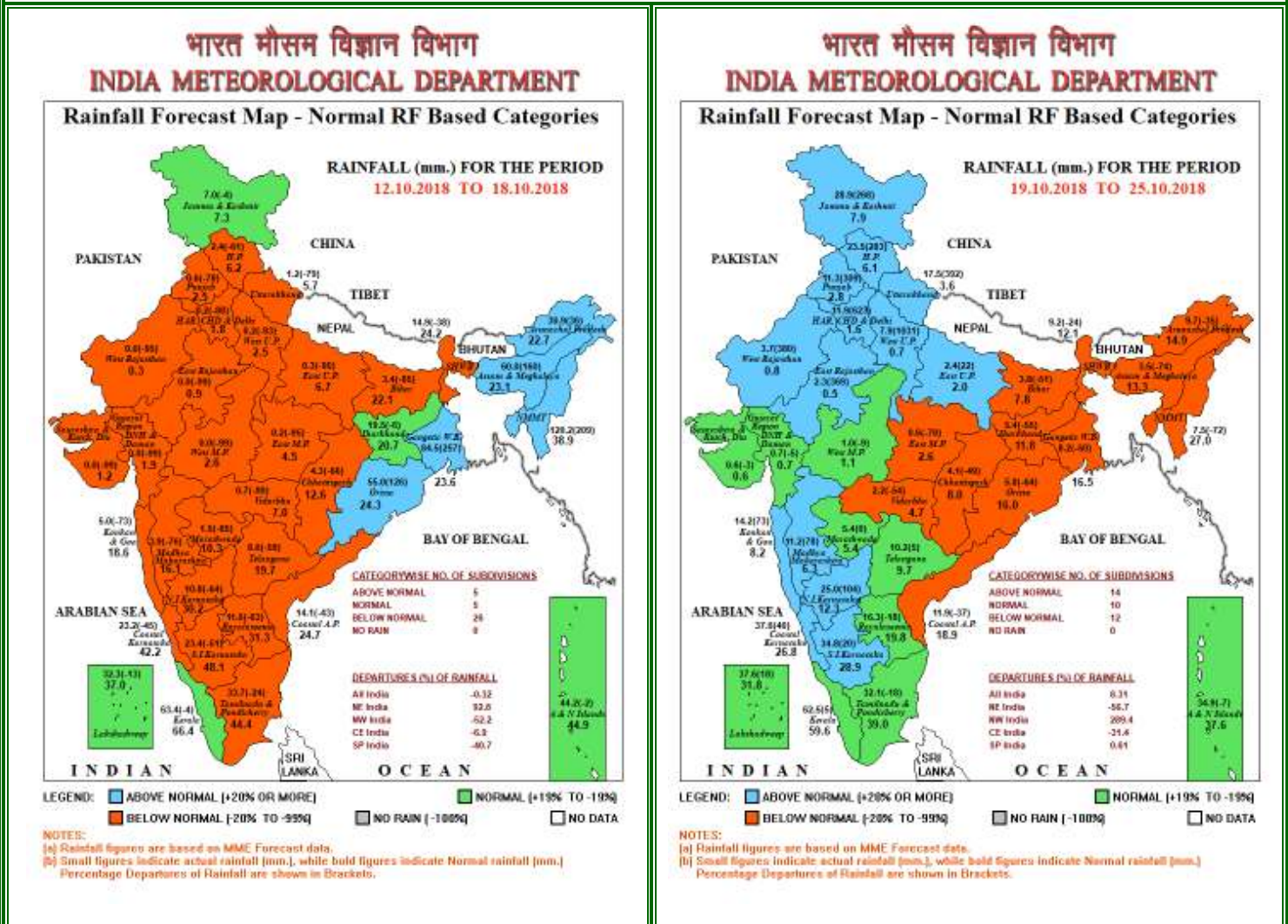
(27<sup>th</sup> September to 10<sup>th</sup> October 2018)



- Normal or above normal rainfall occurred during last two weeks in Coastal Karnataka, South Interior Karnataka, Kerala, Tamil Nadu and Lakshadweep.
- Normal or above normal rainfall occurred in either of the last two weeks in Jammu & Kashmir and Andaman & Nicobar Islands.
- Below normal rainfall occurred in both the weeks in Uttarakhand, Himachal Pradesh, Punjab, East Uttar Pradesh, Rajasthan, Madhya Pradesh, Chhattisgarh, Bihar, Jharkhand, West Bengal & Sikkim, Odisha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Gujarat Region, Saurashtra & Kutch, Maharashtra & Goa, Telangana, Coastal Andhra Pradesh, Rayalaseema and North Interior Karnataka.
- No rain occurred in first week, whereas below normal rainfall occurred in second week in Haryana, Chandigarh & Delhi and West Uttar Pradesh.

# Extended Range Forecast System

Rainfall forecast maps for the next 2 weeks (IC – 10 October)  
(12<sup>th</sup> to 25<sup>th</sup> October 2018)



## Extended Range Rainfall Forecast

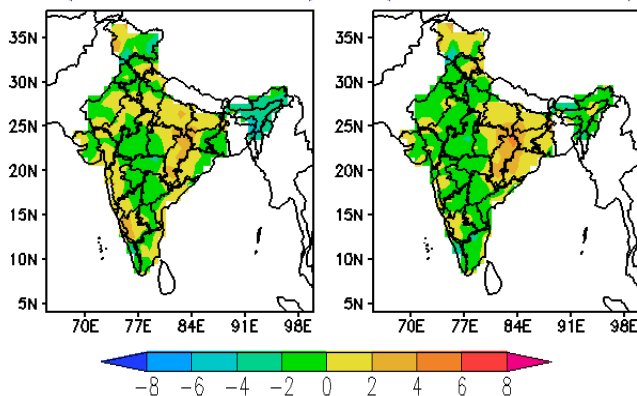
- **Week 1 (12.10.2018 to 18.10.2018):** Above normal rainfall likely over Odisha, Gangetic West Bengal and adjoining North East states. Above normal rainfall likely over parts of Kerala.
- **Week 2 (19.10.2018 to 25.10.2018):** Above normal rainfall is likely over extreme north India.

**Maximum and Minimum temperature anomaly ( $^{\circ}\text{C}$ ) forecast  
for next 2 weeks (IC – 10 October)  
(12<sup>th</sup> to 25<sup>th</sup> October 2018)**

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

(Week1: 12Oct–18Oct)

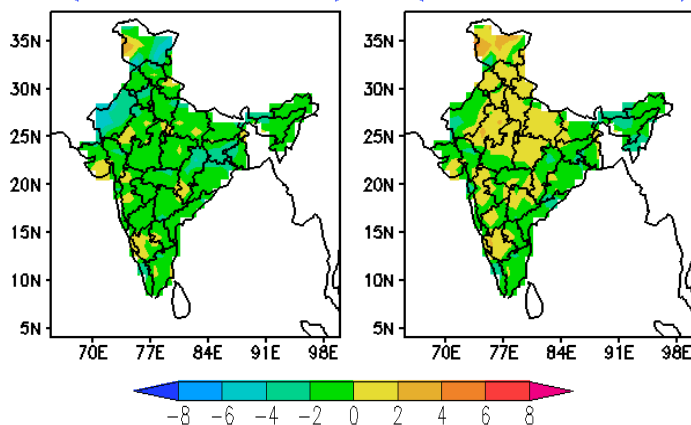
(Week2: 19Oct–25Oct)



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

(Week1: 12Oct–18Oct)

(Week2: 19Oct–25Oct)



**Maximum Temperature (Tmax)**

- **Week 1 (12.10.2018 to 18.10.2018):** Over the Northeast India, parts of central India and northern India Tmax likely to be below normal, whereas over the remaining parts Tmax likely to be above normal.
- **Week 2 (19.10.2018 to 25.10.2018):** Tmax is mostly above normal over eastern part and below normal over western part.

**Minimum Temperature (Tmin)**

- **Week 1 (12.10.2018 to 18.10.2018) and Week 2 (19.10.2018 to 25.10.2018):** Mostly below normal Tmin during week 1 over India with southern and eastern parts also below normal during week 2.

## **Strategic Agricultural Planning based on rainfall during next two weeks till 25<sup>th</sup> October 2018**

### **Agromet Advisories**

#### **Kerala**

Rainfall received during the period from 01 to 11 October 2018 over Kerala is 146.9 mm, which is 54% excess than normal. The extended range weather forecast provided for next two weeks (12 to 18 and 19 to 25 October) is normal for both the weeks.

- Destroy the leaves of Banana affected with spodoptra. If the attack is severe, spray quinalphos 2ml per one litre of water or chlorantraniliprole 3 ml/10 litre of water. Provide drainage in banana plantation. Ensure aeration and drainage in banana field.
- Spindle bug Mahali diseases is expected in Arecanut. Apply Bordeaux mixture against Mahali diseases. Plough the field for weed controlling and rain water infiltration. Clear drainage channels for better drainage.
- Shoot and fruit borer affected parts in cowpea can be removed. Apply 5% Neem Kernel Suspension to control shoot and fruit borer in the initial stage. Spray Flubendamide 2ml/10 litre of water or Chlorantraniliprol 3 ml/10 litre if the attack is severe.

#### **Karnataka**

Rainfall received during the period from 01 to 11 October 2018 over different meteorological sub-divisions of Karnataka viz, North Interior Karnataka is 6.1 mm (89% deficit), South Interior Karnataka is 36.8 mm (41% deficit) and Coastal Karnataka is 101.8 mm (20% excess). The extended range weather forecast provided for 12 to 18 and 19 to 25 October over north interior and south interior Karnataka is below normal for week-1 and above normal for week-2.

#### **South Interior Karnataka**

- Farmers are advised to prepare the land for sowing of rabi crops.
- Postpone the pruning methods in grapes crop due to intermittent rainfall and cloudy weather since last couple of weeks
- To control stem borer in Maize Spray Quinolphos-25 EC @ 2ml/liter of water or Chlorophyriphos - 20 EC @ 2ml/liter of water.
- As 99% deficit rainfall is forecasted, farmers are advised to provide desirable irrigation to crops on field.

#### **Tamil Nadu**

Rainfall received during the period of 01 to 11 October 2018 over Tamil Nadu is 104.5 mm, which is 106% excess as compared to the normal. The extended range weather forecast provided for next two weeks (12 to 18 and 19 to 25 October) is above normal for week-1 and normal for week-2.

- Nursery may be prepared for sowing of K12 chilli. Incorporate the neem cake in the nursery bed to protect seeds and seedlings from pest and diseases.
- As rainfall is expected in next few days, farmers are advised to apply fertilizers to dry land crops.



- Farmers are advised to monitor army worm incidence 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.
  - Chlor Andrinilburol - 0.3 ml/litre.
  - Emamexon Benzoate - 0.4 ml/litre.

### **Maharashtra**

Rainfall received during 01 to 11 October 2018 over different meteorological sub divisions of the state viz., Konkan: 26.6 mm (62% deficit), Madhya Maharashtra: 14.0 mm (66% deficit), Vidarbha: no rainfall and Marathwada: 7.5 mm (79% deficit). The extended range weather forecast provided for next two weeks (12 to 18 and 19 to 25 October) over all sub divisions of Maharashtra is below normal for week-1 and over Konkan and Madhya Maharashtra is above normal, over Marathwada is normal and below normal in Vidarbha for week-2.

### **Marathwada**

- Protective irrigation should be applied in cotton crop as per availability and requirement of water.
- Harvesting of mature soybean crop should be done during clear weather condition.
- Harvesting of timely sown and mature Kharif sorghum crop should be done during clear weather condition.
- For sowing of wheat crop one deep ploughing (15 to 20 cm) followed by 3 to 4 harrowing should be done. Apply FYM (25 to 30 bullock cart) as per availability and level the land.
- Select varieties like Vijay, Vishal, Akash, Phule G-12, BDN-9-3, BDN-797 for sowing of chickpea crop.
- Select varieties like Sharda, PBNS-12 (Parbhani Kusum), PBNS-40 (Non spiny) for sowing of safflower crop.
- As 79% deficit rainfall is forecasted, farmers are advised to provide proper irrigation to crops on field.

### **Madhya Maharashtra**

- To control Army worm on crops like Maize, sugarcane etc, use 5 tricocard per hectare. Under severe incidence spray chlorpyriphos/ quinalphos/ Trizophos @ 15-20 ml per 10 litres water.
- Install 5 pheromone traps/ha in pigeonpea. To destroy eggs of *Helicoverpa armigera* spray chlorpyriphos/ quinalphos @ 20 ml per 10 litres water.
- For control of powdery mildew in ber spraying of contaf @ 1 ml per litre water should be done.
- For control of leaf eating caterpillar in drum stick spraying of chloropyriphos @ 1.5 ml per litre water should be done.
- As 66% deficit rainfall is forecasted, farmers are advised to provide proper irrigation to crops on field.

### **Chhattisgarh**

Rainfall received over Chhattisgarh during 01 to 11 October 2018 is 1.4 mm, which is 96% deficit than normal. The extended range weather forecast provided for next two weeks (12 to 18 and 19 to 25 October) is below normal for both the weeks.

- 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
- Early varieties of winter vegetables like cauliflower, cabbage and knolkhol early should be selected.
- In rice, panicle mite is being observed. For its control Propiconazole 2ml + Profenophos @ 2ml per litre can be sprayed per hectare mixed in 500 litres of water.
- Proper ventillation should be arranged in cattleshed and poultryshed.
- As 96% deficit rainfall is forecasted, farmers are advised to provide desirable irrigation to crops on field.

### **Bihar**

Rainfall received over Bihar during 01 to 11 October 2018 is 2.4 mm, which is 94% deficit. The extended range weather forecast provided for next two weeks (12 to 18 and 19 to 25 October) is below normal for both the weeks.

- Land preparation is advised for planting of sugarcane. Farmers can start this from 15th October onwards.
- Farmers are advised to sow mustard crop after 10<sup>th</sup> October. *Rajendra Sarso-1, 66-197-3 and Swarna* varieties of mustard are recommended for sowing in north Bihar region.
- Regular monitoring of sucking insect-pests such as white fly, leaf hopper and aphid is advised in vegetables crop and nursery of vegetables. For prevention, spraying of Imidacloprid 17.8 %SL @ 0.3ml/liter of water is advised in clear sky condition.
- As 94% deficit rainfall is forecasted, farmers are advised to provide desirable irrigation to crops.
- Land preparation is advised for timely sowing of *rabi* crops such as lentil, pea, garlic, coriander, sunflower, rajma and methi. Application of well decomposed FYM@150-200 quintal/ha is advised.

### **Uttar Pradesh**

Amount of rainfall received over East Uttar Pradesh region is 0.1 mm (99% deficit) and West Uttar Pradesh is 0.1 mm (99% deficit) during 01 to 11 October 2018. The extended range weather forecast provided for two weeks (12 to 18 and 19 to 25 October) for West and East Rajasthan is below normal for week-1 and above normal for week-2.

- Moisture should be added through light irrigation in the field of rice at critical stages such as PI, flowering and seed setting stage according to their transplanting date.
- Timely sown maize crops are going to mature or at harvesting stage, but late sown crop is going at milking, seed setting and dough stage, therefore, farmers are advised to maintained moisture by light irrigation and harvest matured crop.
- Weeding and thinning should be completed in Toria during this week.
- Sorghum and Pearl millet when infested by shoot borer and grass hopper, apply forate-10% G @ 20 kg/ha or Quinalphos 25% EC @ 1.5lt./ha with 500 litre water solution.
- As 99% deficit rainfall is forecasted, farmers are advised to provide desirable irrigation to crops on field.

## **West Bengal**

Rainfall received over Gangetic West Bengal during 01 to 11 October 2018 is 0.5 mm, which is 99% deficit. The extended range weather forecast provided for next two weeks (12 to 18 and 19 to 25 October) is above normal for week-1 and below normal for week-2.

- Aman Rice : It is hereby advised that prepare the drainage channels as heavy rainfall is expected due to cyclonic storm “Titli”. In addition, lodging of crops will be prominent due to stormy wind. Thus, farmers are advised to always monitor the crops.
- Winter Vegetables: Cover up the nursery seedbed to protect the seedlings from heavy rainfall and stormy wind.

## **Jharkhand**

Rainfall received over Jharkhand during 01 to 11 October 2018 is 0.2 mm, which is 99% deficit. The extended range weather forecast provided for next two weeks (12 to 18 and 19 to 25 October) is normal for week-1 and below normal for week-2.

- In medium land, short duration varieties of rice transplanted at right time are at maturity stage or ready to harvest. At the time of harvesting, pick the black earhead (affected earhead with false smut disease) and destroy them after burning.
- Recommended varieties of mustard are Shiwani, Varuna, Pusa Bold, BR-40 etc. 3 kg seeds are required for cultivation in one acre. Farmers are advised to sow the seed in line at a distance of 30 cm (row to row) and 10 cm. (plant to plant).
- Recommended varieties of rainfed wheat are HDR-77, K-8027, Birsa genhu – 3 etc. 50 kg seeds/acre is required for cultivation. Seed may be sown in line at a distance of 22 cm (Row to row) and 7 cm. (Plant to plant).
- Farmers, having assured irrigation facility and wish to cultivate potato and green peas, are suggested to go for seeding. Recommended variety of potato for this region is Kufri Ashoka, Kufri Pukhraj, Kufri Lalima, Kufri Pushkar and Kufri Kanchan and recommended variety of pea are Arkel or Azad pea.
- As 99% deficit rainfall is forecasted, farmers are advised to provide desirable irrigation to crops.

## **Rajasthan**

Amount of rainfall received over East Rajasthan region is 1.1 mm (89% deficit) and West Rajasthan is 0.2 mm (92% deficit) during 01 to 11 October 2018. The extended range weather forecast provided for two weeks (12 to 18 and 19 to 25 October) for West and East Rajasthan is below normal for week-1 and above normal for week-2.

- Harvest soybean, maize, sorghum, green gram and bajra, wherever it has attained physiological maturity stage and vacate the field for sowing of rabi crops.
- Field preparation should be started for *rabi* crops. Ploughing and planking should be done properly to conserve the moisture in the soil & sowing of rainfed mustard should be done in conserved moisture condition.
- Field sanitization should be done before sowing of *rabi* crop. Bunds, channels, uncultivated fields and field roads should be cleaned by removing weeds.
- Harvesting of paddy crop should be done and stop irrigation 2 weeks before harvesting.



- As deficit rainfall is forecasted, provide desirable irrigation to other standby crops.

### **Gujarat**

Amount of rainfall received over Gujarat region is 0.5 mm (96% deficit) and Saurashtra & Kutch is 0.8 mm (90% deficit) during 01 to 11 October 2018. The extended range weather forecast provided for two weeks (12 to 18 and 19 to 25 October) for Gujarat region and Saurashtra & Kutch is below normal for week-1 and normal for week-2.

- If Paddy is in flowering or grain filling stage, maintain water level up to 2-3 cm in plot during this time. To control blast disease spraying of Tricyclazole 6g/10 liter or Carbendazim 10g/10 litre is advised.
- Installation of pheromone traps @ 12-15/ha is advised for monitoring of pink bollworm infestation in cotton crop. Pick and burry the infested flowers/bolls in soil for control of pink bollworm infestation in cotton. Spray of *Beauveria bassiana* fungus powder 40gm with profenofos 50 EC 20 ml or cypermethrin 10 ml in 10 litres of water is recommended.
- Under limited irrigation water availability, micro irrigation systems (drip or sprinkler) should be used to irrigate the crop at critical growth stages.

### **Assam**

Rainfall received over Assam is 15.7 mm (80% deficit) during 01 to 11 October 2018. The extended range weather forecast provided for next two weeks (12 to 18 and 19 to 25 October) is above normal for week-1 and below normal for week-2.

- Gandhi bug infestation may be observed in rice field. 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 and apply lime at least 21 days prior to sowing of mustard seeds and also collect high yielding variety such as M-27, TS-36, TS-38 etc. The optimum sowing time is 20th October to 20th November for getting higher yield.
- As 80% deficit rainfall is forecasted, farmers are advised to provide desirable irrigation to crops.

### **Punjab**

Rainfall received over Punjab is 0.6 mm rainfall (96% deficit) during 01 to 11 October 2018. The extended range weather forecast provided for next two weeks (12 to 18 and 19 to 25 October) is below normal for week-1 and above normal for week-2.

- As dry weather is forecasted, farmers are advised to start harvesting/ threshing of rice crop.
- Farmers can do picking of cotton during the period.
- Blast is becoming a major disease problem in basmati rice. Farmers are advised to monitor their crop regularly and on appearance of this disease, spray the crop with Amistar top 325SC @ 200 ml or Indofil-Z-78 @ 500g in 200 litre water per acre.

- It is the optimum time for sowing of nursery of tomato.
- As 80% deficit rainfall is forecasted, farmers are advised to provide desirable irrigation to crops.

### **Haryana**

Haryana has received 0.1 mm of rainfall during 01 to 11 October 2018, which is 99% deficit. The extended range weather forecast provided for next two weeks (12 to 18 and 19 to 25 October) is below normal for week-1 and above normal for week-2.

- Farmers are advised to monitor the infestation of paddy blast, if infestation/symptom observed than spray 120 gram tricyclazole 75 WP mixed with 200 liters water per acre, spray when weather remain clear.
- Due to rain in previous week the infestation of Boll rot disease may occur in cotton field, spray 2 gram copper oxychloride or 2 gram Bavistin mixed with per liter water. For better leaf adhesive use 50 ml triton in 100 liter solution in cotton crop.
- As 99% deficit rainfall is forecasted, farmers are advised to provide desirable irrigation to crops.
- Farmers are advised to keep the animals under well ventilated place and provide clean drinking water and green forage as per requirement.

### **Himachal Pradesh**

Himachal Pradesh has received 1.5 mm of rainfall during 01 to 11 October 2018, which is 93% deficit. The extended range weather forecast provided for next two weeks (12 to 18 and 19 to 25 October) is below normal for week-1 and above normal for week-2.

- Field preparation should be started for early sowing varieties of mustard and wheat. For sowing, farmers are advised to arrange quality seeds.
- Tomato and capsicum may be transplanted in poly-houses.
- Due to white fly and sucking pests, yellowing of leaves or dark spots on fruits start appearing in vegetable crops, farmers are advised to spray Imidacloprid 17.8 % SC@ 1.0 ml / 3 litre of water in clear weather.
- As 93% deficit rainfall is forecasted, farmers are advised to provide desirable irrigation to crops.

### **Jammu**

Rainfall received during 01 to 11 October 2018 over Jammu is 10.2 mm, which is 33% deficit. The extended range weather forecast provided for next two weeks (12 to 18 and 19 to 25 October) over Jammu is normal for week-1 and above normal for week-2.

- Spray mancozeb @ 0.25% during clear weather to control brown spot in coarse rice. Give 2-3 sprays at 15 days interval.
- Sowing of gobi sarson (GSL-1, DGS-1) crop may be done without any further delay. Apply whole quantity of P and K & ½ N at time of sowing.

- Farmers are advised to manually rogue out yellow leaf plants (mosaic affected). Spray Imidacloprid @0.5% to check the population of white fly which is the major vector of disease.
- Apply Nuvan @ 1ml/litre of water during clear weather in nursery to avoid the attack of cabbage caterpillar/leaf eating caterpillar.

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