



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

**Validity: 31 August to 13 September 2018**

**Date of issue: 31 August 2018**

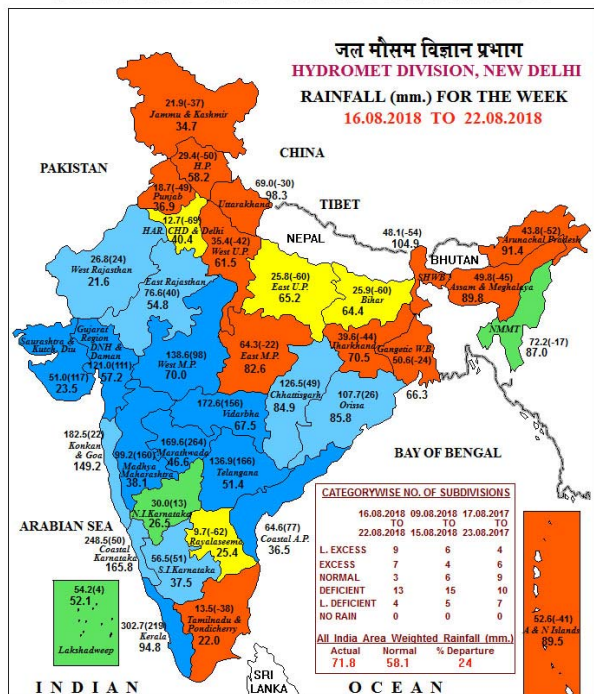
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**Central Research Institute for Dryland Agriculture (CRIDA), Hyderabad.**  
**&**  
**Earth System Science Organization**  
**India Meteorological Department**

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

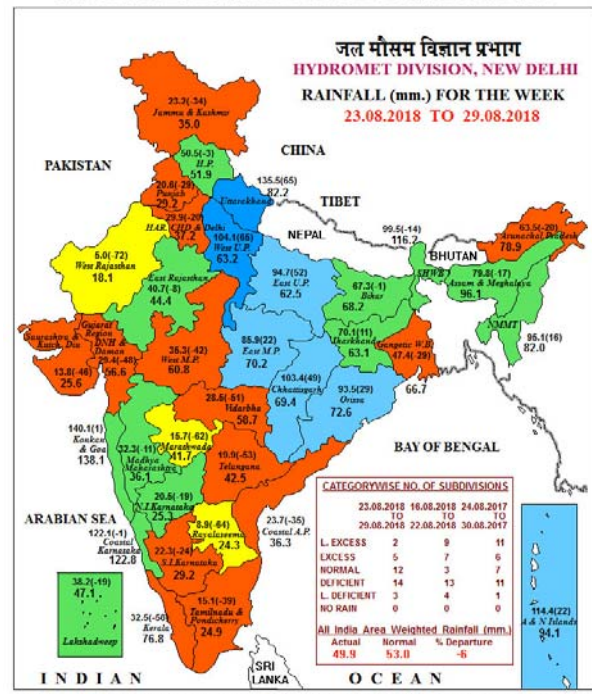
### Realized Rainfall

(16<sup>th</sup> to 29<sup>th</sup> August 2018)

#### भारत मौसम विज्ञान विभाग INDIA METEOROLOGICAL DEPARTMENT



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- Normal or above normal rainfall occurred during last two weeks in East Rajasthan, NMMT (Nagaland, Manipur, Mizoram & Tripura), Chhattisgarh, Odisha, Konkan & Goa, Madhya Maharashtra, Coastal Karnataka, North Interior Karnataka and Lakshadweep.
- Normal or above normal rainfall occurred in either of the last two weeks in Uttar Pradesh, Uttarakhand, Himachal Pradesh, West Rajasthan, West Madhya Pradesh, East Madhya Pradesh, Bihar, Jharkhand, Marathwada, Vidarbha, Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Gujarat, Telangana, Coastal Andhra Pradesh, South Interior Karnataka, Kerala and Andaman & Nicobar Islands.
- Below normal rainfall occurred in both the weeks in Jammu & Kashmir, Punjab, Haryana, Chandigarh & Delhi, Gangetic West Bengal, Arunachal Pradesh, Rayalaseema and Tamil Nadu.

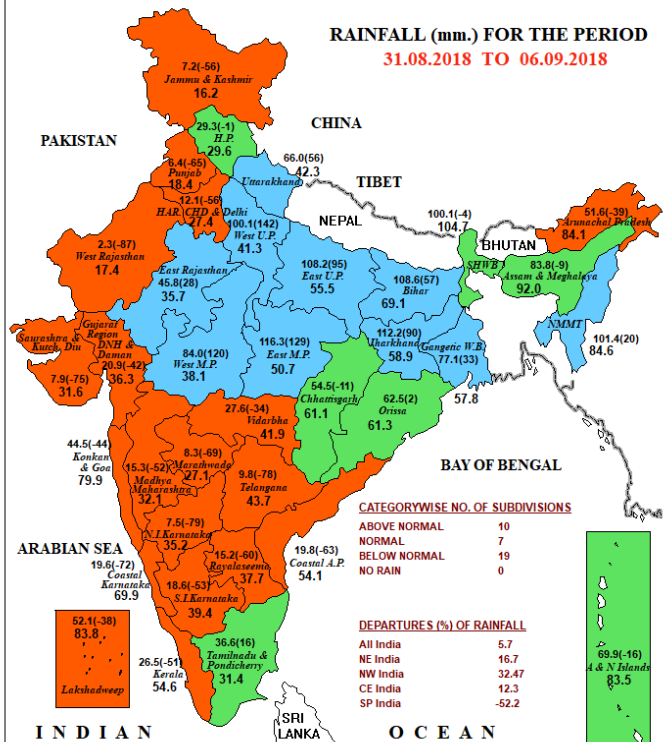
## Extended Range Forecast System

### Rainfall forecast maps for the next 2 weeks (IC – 29 August)

(31<sup>st</sup> August to 13<sup>th</sup> September 2018)

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**Rainfall Forecast Map - Normal RF Based Categories**

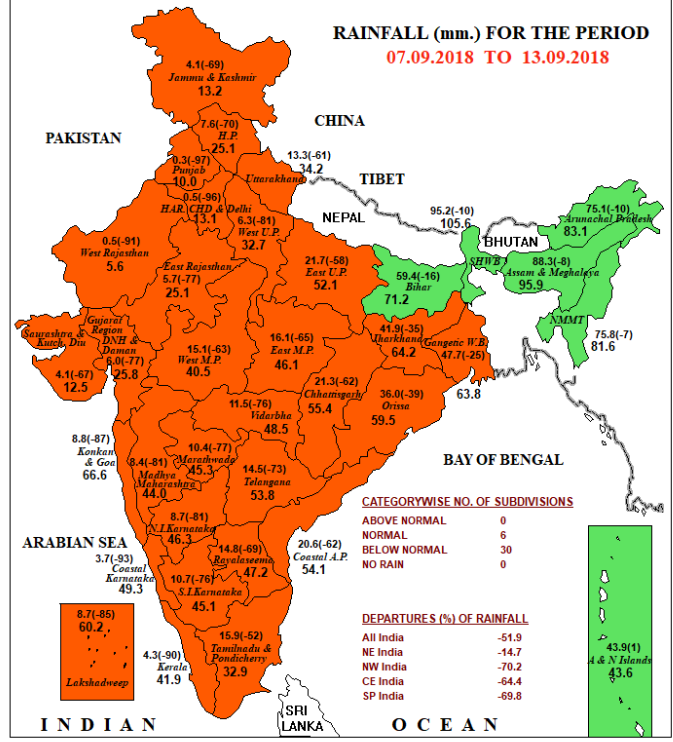


**NOTES:**

- [a] Rainfall figures are based on MME Forecast data.
- [b] Small figures indicate actual rainfall (mm.), while bold figures indicate Normal rainfall (mm.)
- Percentage Departures of Rainfall are shown in Brackets.

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**Rainfall Forecast Map - Normal RF Based Categories**



**NOTES:**

- [a] Rainfall figures are based on MME Forecast data.
- [b] Small figures indicate actual rainfall (mm.), while bold figures indicate Normal rainfall (mm.)
- Percentage Departures of Rainfall are shown in Brackets.

### Extended Range Rainfall Forecast

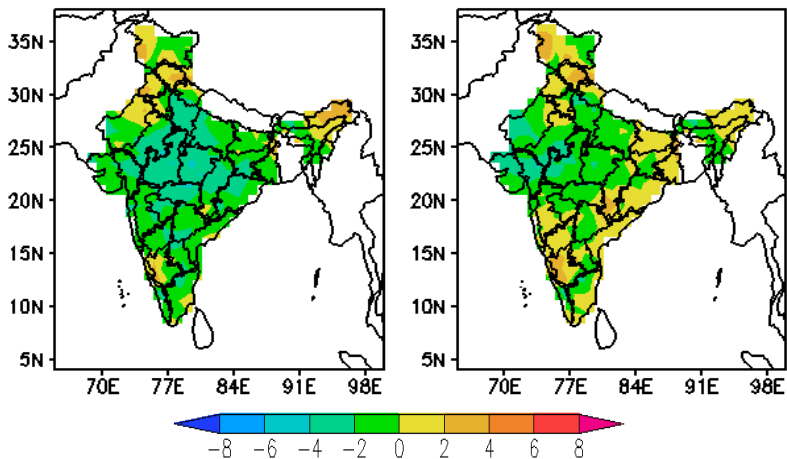
- **Week 1 (31.08.2018 to 06.09.2018):** Rainfall mainly forecasted over eastern parts of north India and adjoining central India and eastern India with normal to above normal rainfall likely over Madhya Pradesh, east Rajasthan, Uttar Pradesh, Bihar, Jharkhand, Uttarakhand & adjoining Himachal Pradesh, north Chhattisgarh, north Odisha, Gangetic West Bengal and parts of northeast India. Deficient or below normal rainfall mainly over northwest India, western coastal regions of India and south peninsular India. Normal monsoon for the country as a whole.
- **Week 2 (07.09.2018 to 13.09.2018):** Weak monsoon rainfall conditions over the whole country except over Northeast States, Sub-Himalayan West Bengal & Sikkim, Bihar and Andaman & Nicobar Islands.

**Maximum and Minimum temperature anomaly ( $^{\circ}$ C) forecast  
for next 2 weeks (IC – 29 August)  
(31<sup>st</sup> August to 13<sup>th</sup> September 2018)**

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

(Week1: 31Aug–06Sep)

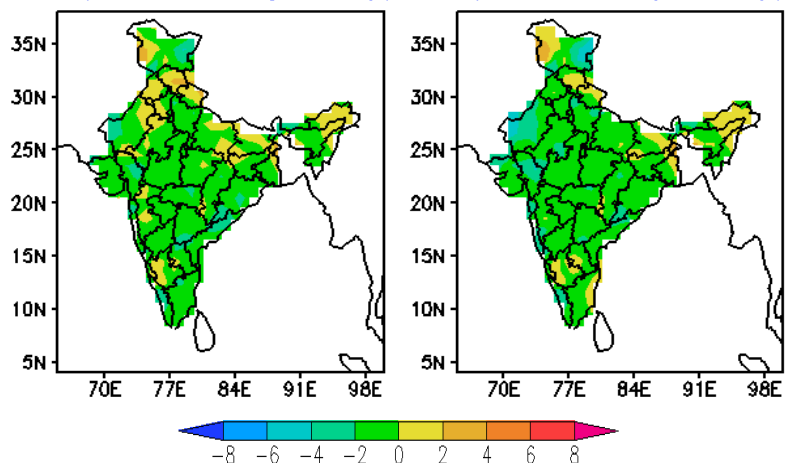
(Week2: 07Sep–13Sep)



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

(Week1: 31Aug–06Sep)

(Week2: 07Sep–13Sep)



**Maximum Temperature (Tmax)**

- **Week 1 (31.08.2018 to 06.09.2018) and Week 2 (07.09.2018 to 13.09.2018):** Mostly normal to below normal Tmax in week 1 over the country and over the northwest India during week 2. However, some pockets of slightly above normal Tmax belt is likely over eastern and southern parts of the country.

**Minimum Temperature (Tmin)**

- **Week 1 (31.08.2018 to 06.09.2018) and Week 2 (07.09.2018 to 13.09.2018):** Mostly normal to below normal Tmin during the period over all parts of the country.

## **Strategic Agricultural Planning based on rainfall during next two weeks till 13<sup>th</sup> September 2018**

### **Agromet Advisories**

#### **Kerala**

Rainfall received during the period from 01 June to 30 August 2018 over Kerala is 2424.0 mm, which is 36% excess than normal. The extended range weather forecast provided for next two weeks (31 August to 6 September and 7 to 13 September) is below normal for both the weeks.

- To control rice bug, spray 2 ml malathion per litre of water. (Pesticides application should be done either before 9 am or after 3 pm). Otherwise, the pesticide application will adversely affect the pollination.
- Due to monsoon showers, there is a chance of Sigatoka disease in banana. As a precaution, spray Pseudomonas 20g/litre. In case of severe attack, spray 2 ml hexaconazole or 1 ml propiconazole per one litre of water by mixing it with a sticker and spray on both the surfaces of the leaf.
- Weather may be favourable for the soft rot disease in Ginger. Remove weeds and apply urea @ 33 kg per acre. To control soft rot, drench the soil with 1% Bordeaux mixture/0.3% mancozeb.

#### **Karnataka**

Rainfall received during the period from 01 June to 30 August 2018 over different meteorological sub-divisions of Karnataka viz, North Interior Karnataka is 281.5 mm (20% deficit), South Interior Karnataka is 563.9 mm (10% excess) and Coastal Karnataka is 2936.8 mm (7% excess). The extended range weather forecast provided from 31 August to 6 September and 7 to 13 September over all the sub divisions of Karnataka is below normal for both the weeks.

#### **North Interior Karnataka**

- Sowing of desi cotton, castor, cowpea and horsegram as sole crop can be taken up in shallow black and red soils. Similarly, in medium black and deep black soils, sowing of Sunflower, Cotton and fodder crops may be opted.
- As below normal rainfall is forecasted, farmers are advised to provide desirable irrigation to crops.
- Vaccinate livestock against Foot and Mouth disease (FMD vaccination), Black Quarter disease (BC vaccination) and *Haemorrhagic septicaemia*.

#### **South Interior Karnataka**

- To control stem borer in Maize Spray Quinolphos-25 EC @ 2ml/liter of water or Chlorophyriphos -20 EC @ 2ml/liter of water.

## **Tamil Nadu**

Rainfall received during the period of 01 June to 30 August 2018 over Tamil Nadu is 176.0 mm, which is 10% deficit as compared to the normal. The extended range weather forecast provided for next two weeks (31 August to 6 September and 7 to 13 September) is normal for week-1 and below normal for week-2.

- Prevailing weather condition is congenial for panama wilt disease incidence in Banana. For controlling this, drench banana with Carbendazim @ 2g/litre of water.
- In the prevailing weather having high cloud cover and moderate humidity, there is a chance for incidence of boll worm in cotton. For controlling this pest, spray Chlorantraniliprole 18.5% SC 150 ml/ha or Chlorpyrifos 20% EC 1250 ml/ha.
- Farmers are advised to monitor army worm in maize. The larvae scrapping the leaves, makes small to medium elongated pin holes and causes loss of top portion of leaves. It also feeds on tassel. If symptoms were noticed, spray any one of the following pesticides to control.
  - Thiodicarb 70 WP 2g/lit.
  - Flubendiamide 480 SC 3 ml/10 lit.

## **Andhra Pradesh**

Amount of rainfall received over Rayalaseema region is 147.7 mm (43% deficit) and Coastal Andhra Pradesh is 483.6 mm (17% excess) during 01 June to 30 August 2018. The extended range weather forecast provided for two weeks (31 August to 6 September and 7 to 13 September) for Rayalaseema and Coastal Andhra Pradesh is below normal for both the weeks.

- Farmers of Rayalaseema districts and south coastal Andhra Pradesh can sow contingency crop like cowpea, fodder, sorghum, pearl millet, horse gram wherever sufficient rainfall was received.
- Farmers who have sown groundnut crop during June-July months in Chittoor, Ananthapuramu, Kurnool districts are advised to apply gypsum @ 500 kg/ha utilizing the soil moisture, wherever rainfall occurred.
- Pinkboll worm incidence is observed in western district of Kurnool district in early sown (May, June) cotton crop. Farmers are advised to spray Quinalphos @ 2ml/litre or Chlorpyrifos @ 2.5 ml/ lit or Thiodicarb @ 1g/litre.

## **Maharashtra**

Rainfall received during 01 June to 30 August 2018 over different meteorological sub-divisions of the state viz., Konkan: 2743.4 mm (8% excess), Madhya Maharashtra: 610.4 mm (8% excess), Vidarbha: 788.8 mm (8% excess) and Marathwada: 502.7 mm (normal). The extended range weather forecast provided for next two weeks (31 August to 6 September and 7 to 13 September) for all the sub divisions of Maharashtra is below normal for both the weeks.

## **Marathwada**

- To control attack of stem borer in sorghum crop soil application of Carbofuran 3 % @ 8 kg per acre may be done.
- To control downy mildew in pearl millet crop, farmers are advised to spray Metalaxil @ 25 gm per 10 litres of water.

### **Konkan**

- To control red palm weevil affected coconut trees, farmers are advised to prepare a slanting hole with the help of screw drill about 1 m height from ground level on tree trunk and pour about 20 ml of 36 % Monocrotophos with the help of plastic funnel in the hole and close the hole with the help of cement.
- If the incidence of aphids, leaf hoppers, red pumpkin beetle, leaf eating caterpillars, leaf miner is noticed on cucurbitaceous crops, spray malathion 20 ml or Dimethoate 15 ml per 10 liters of water at 10 to 15 days interval.
- If incidence of stem borer is noticed in rice field, broadcast phorate 10 % granules @10 kg/ha or 5 % Quinalphos granules @ 15 kg/ha or 3 % Carbofuran granules @ 16.5 kg/ha.

### **Vidarbha**

- For control of tobacco leaf eating caterpillar and green semilooper in soybean on a non-rainy day, undertake spray of Indoxacarb 15.8% EC @ 6.67 ml per 10 litres of water and to control of girdle beetle undertake spray of Triazophos 40 % @ 25 ml per 10 litres of water.
- In pigeon pea, farmers are advised to undertake drenching with copper oxychloride @ 25 g/10 litres of water to avoid incidence of wilt and root rot.

### **Chhattisgarh**

Rainfall received over Chhattisgarh during 01 June to 30 August 2018 is 944.4 mm, which is 3% excess than normal. The extended range weather forecast provided for next two weeks (31 August to 6 September and 7 to 13 September) is normal for week-1 and below normal for week-2.

- At present, rice crop is at tillering stage in most of the fields. Farmers are advised to go for first top dressing with urea (40 kg/ha.) for healthy tillers, 2-3 days after cessation of rains. Farmers are advised to go for top dressing of urea only after control of insects and weeds.
- Kharif onion should be planted in the main fields 2-3 days after cessation of rain.
- To maintain milk production and prevention from disease, cattle sheds should be well protected from flies and mosquitoes.

### **Bihar**

Rainfall received over Bihar during 01 June to 30 August 2018 is 631.7 mm, which is 20% deficit. The extended range weather forecast provided for next two weeks (31 August to 6 September and 7 to 13 September) is above normal for week-1 and normal for week-2.

- Regular monitoring is advised for infestation of stem borer and leaf folder insect pest in paddy crop. If infestation is observed, application of cartap hydrochloride 4g @10kg/acre is advised to protect the crop.
- Monitoring is advised for Yellow Vein Mosaic Virus (YMV) disease in okra. If infestation is observed in the crop, spraying of Imidacloprid @ 0.3ml/litre of water is advised in clear day condition.

### **Uttar Pradesh**

Amount of rainfall received over East Uttar Pradesh is 624.0 mm (9% deficit) and West Uttar Pradesh is 595.2 mm (2% deficit) during 01 June to 30 August 2018. The extended range weather forecast provided for next two weeks (31 August to 6 September and 7 to 13 September) over East Uttar Pradesh and West Uttar Pradesh is above normal for week-1 and below normal for week-2.

- If Khaira disease appears under late planted paddy, spray 5.0kg Zinc Sulphate /ha. with 2.0% Urea solution.
- Sorghum, maize and pearl millet, when infested by shoot borer and grass hopper, apply forate-10% G @ 20 kg/ha or Quinalphos 25% EC @ 1.5 litre/ha with 500 litre water solution.
- Undertake weeding in late planted paddy, pulses and oil seed crops.

### **Jharkhand**

Rainfall received over Jharkhand during 01 June to 30 August 2018 is 624.3 mm, which is 25% deficit. The extended range weather forecast provided for next two weeks (31 August to 6 September and 7 to 13 September) is above normal for week-1 and below normal for week-2.

- If the Maize crop is attacked by fruit borer, spray neem based insecticide on upper part of the plant @ 2-3 ml per litre of water.
- Due to attack of stem borer in rice, the upper leaves and main stem of the plant starts drying. To control the stem borer, spray insecticide Monocrotophos 36 E.C. @ 1-2 ml per litre of water.

### **Odisha**

Rainfall received over Odisha during 01 June to 30 August 2018 is 995.2 mm, which is 11% excess. The extended range weather forecast provided for next two weeks (31 August to 6 September and 7 to 13 September) is normal for week-1 and below normal for week-2.

- Farmers are advised to go for transplanting for cauliflower, brinjal, tomato and chillies in uplands.
- Maize is at tasseling stage. Farmers are advised to go for weeding, if required. Apply 8 kg nitrogen/acre leaving 5 cm from the rows followed by earthing up. Drain out excess water if continuous rain occur.
- Jute is at vegetative stage. Drain out excess water as it affects the quality of fibre. Remove the branches during intercultural operation to increase the length of fibre by increasing the main shoot length. Jute semilooper has been observed. To control, spray 2 ml Endosulphan per litre of water.

### **Rajasthan**

Amount of rainfall received over East Rajasthan region is 481.7 mm (5% deficit) and West Rajasthan is 181.0 mm (17% deficit) during 01 June to 30 August 2018. The extended range weather forecast provided for two weeks (31 August to 6 September and 7 to 13 September) for West Rajasthan is below normal for both the weeks and East Rajasthan is above normal for week-1 and below normal for week-2.



- In present weather conditions, if white flies or sucking pests are above ETL in soybean, moong and urd crops, spray Imidacloprid @ 0.3 ml /litre of water or Trizophose 40 EC 1 ml/litre of water.
- Due to humid weather conditions, there may be increase in population of insect pests of cotton. Farmers are advised to install pest specific pheromone traps in the fields for monitoring the insect.

### **Assam**

Rainfall received over Assam is 974.9 mm (32% deficit) during 01 June to 30 August 2018. The extended range weather forecast provided for next two weeks (31 August to 6 September and 7 to 13 September) is normal for both the weeks.

- Farmers are advised to inoculate the seeds of summer pulses with 150 g of Rhizobium culture per 3-4 kg of seeds before sowing. For line sowing, 3.0-3.6 kg of seeds per bigha is required. Maintain an optimum spacing of 30 cm between the rows and 10 cm between the plants.
- During this monsoon period, farmers may observe small spindle shaped spots on foliage with greyish centre on Banana. To control this disease, spray Carbendazim at first appearance followed by 4 sprays at 30 days interval.

### **Punjab**

Rainfall received over Punjab is 340.2 mm rainfall (14% deficit) during 01 June to 30 August 2018. The extended range weather forecast provided for next two weeks (31 August to 6 September and 7 to 13 September) is below normal for both the weeks.

- For the management of Thrips in cotton, spray either 500 ml/acre Curacron 50 EC or 200 g Polo 50 WP or 800 ml Fosmite 50 EC in 150 litres of water per acre.
- It is optimum time to sow maize hybrid PMH 1 or PMH 2 under irrigated conditions.
- It is right time for sowing of cauliflower nursery of mid season varieties under irrigated conditions.
- For management of *Phytophthora/Foot rot* in citrus, Spray Sodium hypochlorite (5%) on the soil under the canopy of trees along with tree trunk @ 50ml/10 litres of water per tree.

### **Haryana**

Haryana has received 290.8 mm of rainfall during 01 June to 30 August 2018, which is 24% deficit. The extended range weather forecast provided for next two weeks (31 August to 6 September and 7 to 13 September) is below normal for both the weeks.

- Farmers are advised to do the weed management and maintain 5-6 cm water level in rice fields.
- Farmers are advised to do weed management and intercultural operation to conserve soil moisture in Bajra/Guar.
- As below normal 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 the requirement. Provide 50 grams iodized salt and 50 to 100 grams mineral mixture daily with feed & green fodder to keep them healthy.

## Jammu

Rainfall received during 01 June to 30 August 2018 over Jammu is 473.0 mm, which is 9% excess. The extended range weather forecast provided for next two weeks (31 August to 6 September and 7 to 13 September) over Jammu is below normal for both the weeks.

- Weather is congenial for the attack of stem borer in maize, whorl application of carbofuran/ cartap granules @ 5 gm/whorl is recommended to control the insect. Spray Carbaryl @ 0.1 % during clear weather, if attack of blister beetle is observed.
- Apply 2<sup>nd</sup> dose of Nitrogen as top dressing during clear weather in early & normal transplanted paddy just before panicle initiation stage (55 – 65 DAT).
- Weather is favourable for hairy caterpillar infestation in *kharif pulses*. To control, spray Quinalphos @ 0.03% or Dichlorvos @ 0.05% during clear weather.

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