



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

**Validity for 06<sup>th</sup> to 19<sup>th</sup> July 2018**

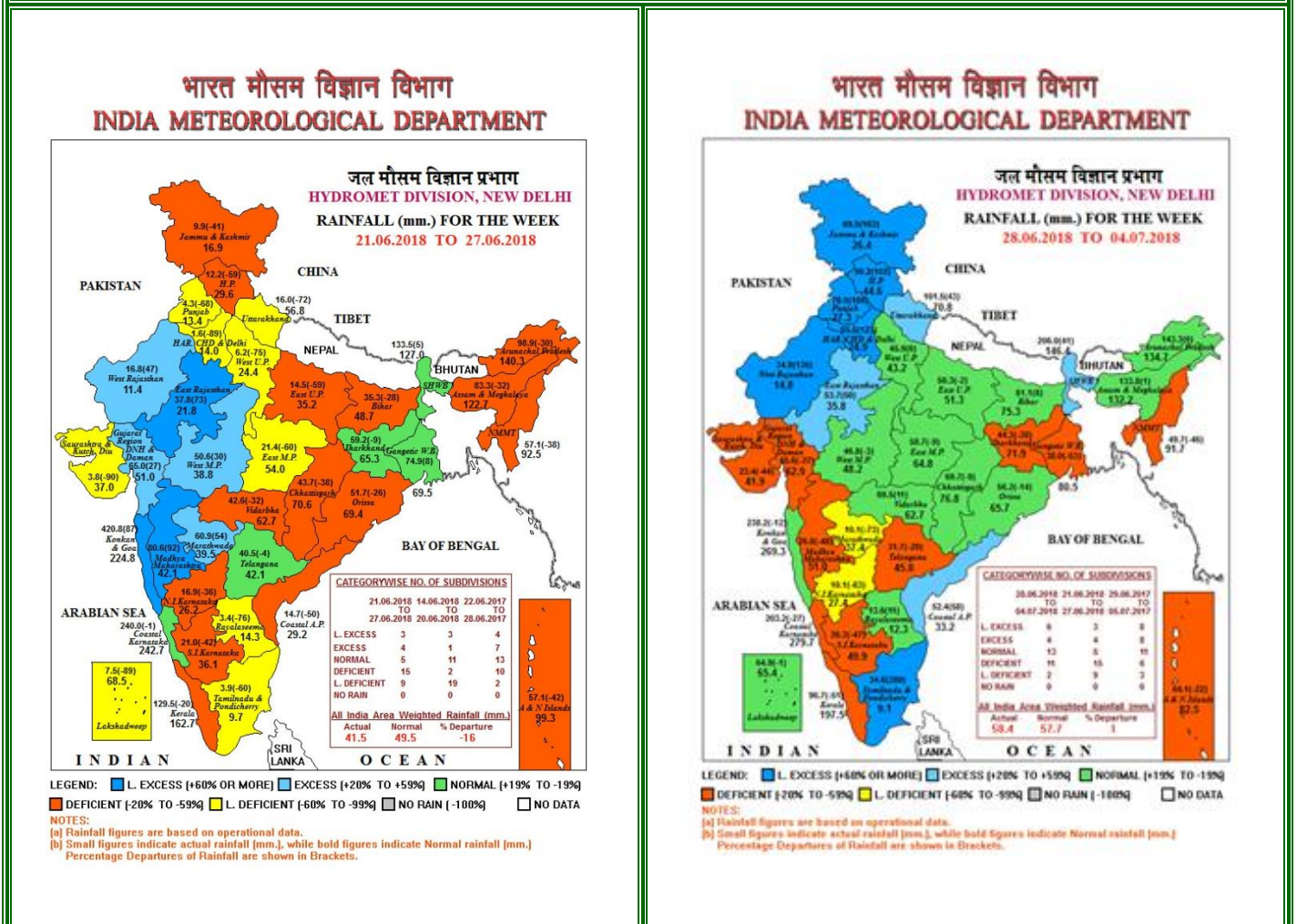
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**&**  
**Earth System Science Organization**  
**India Meteorological Department**

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

### Realized Rainfall

(21<sup>st</sup> June to 4<sup>th</sup> July 2018)



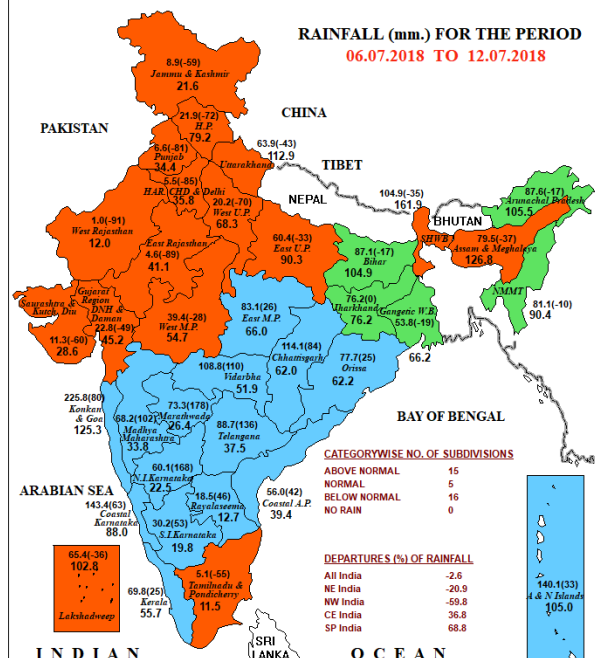
- Normal or above normal rainfall occurred during last two weeks in Rajasthan, Sub-Himalayan West Bengal & Sikkim, Konkan & Goa and West Madhya Pradesh.
- Normal or above normal rainfall occurred in either of the last two weeks in Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Haryana Chd &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

# Extended Range Forecast System

## Rainfall forecast maps for the next 2 weeks (IC – 4 July) (6<sup>th</sup> July to 19<sup>th</sup> July 2018)

### भारत मौसम विज्ञान विभाग INDIA METEOROLOGICAL DEPARTMENT

Rainfall Forecast Map - Normal RF Based Categories

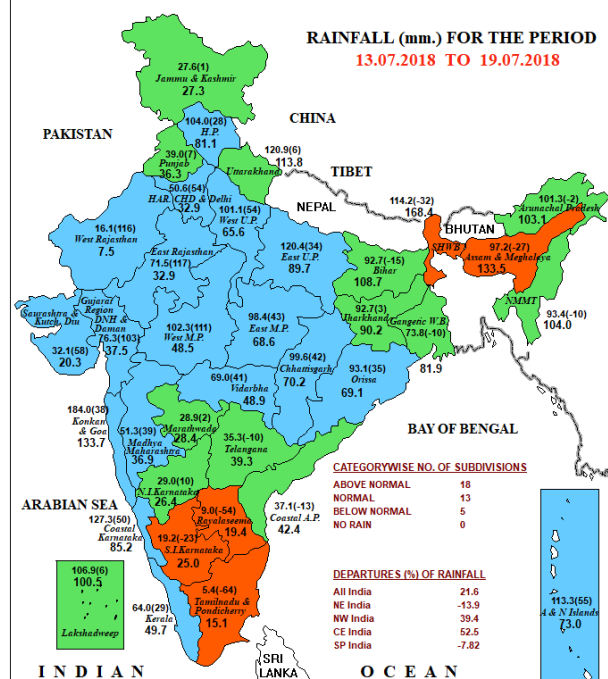


LEGEND: ■ ABOVE NORMAL (+20% OR MORE) ■ NORMAL (+19% TO -19%)  
■ BELOW NORMAL (-20% TO -99%) ■ NO RAIN (-100%)  NO DATA

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



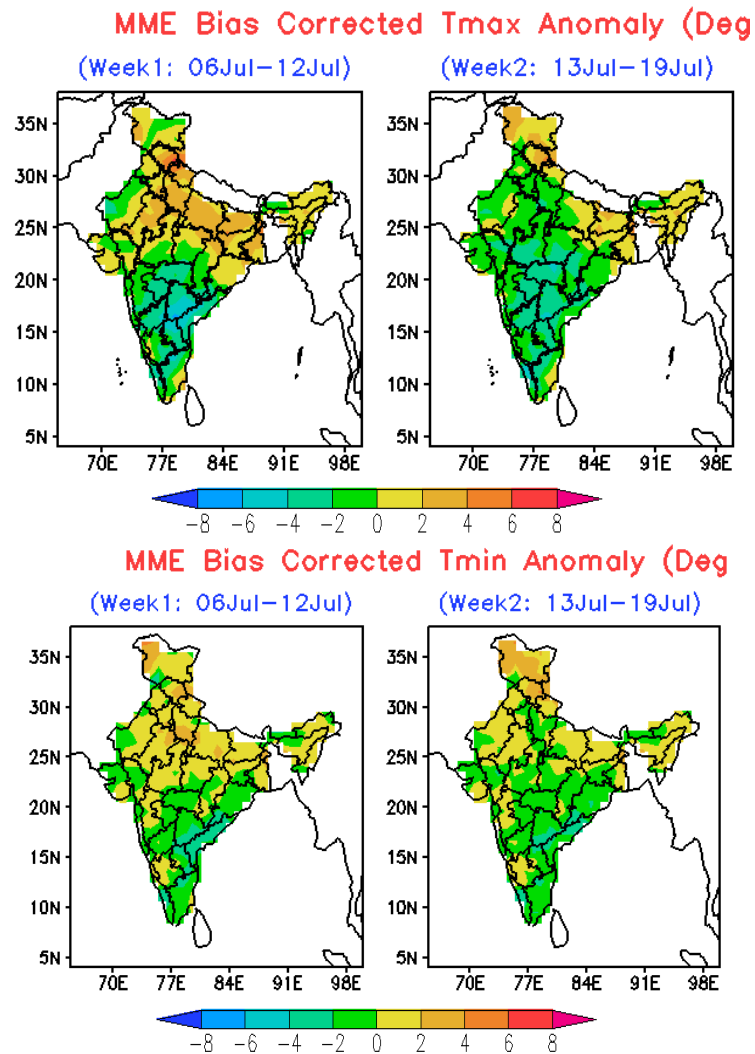
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NOTES:  
(a) Rainfall figures are based on MME Forecast data.  
(b) Small figures indicate actual rainfall (mm.), while bold figures indicate Normal rainfall (mm.)  
Percentage Departures of Rainfall are shown in Brackets.

## Extended Range Rainfall Forecast

**Week 1 (06.07.2018 to 12.07.2018) and Week 2 (13.07.2018 to 19.07.2018):** Northwest India, northern India and northeast India; monsoon will be in weaker phase (below normal), whereas the central parts of India and southern parts of India rainfall is likely to be above normal. For the country as a whole it is likely to be normal.

Maximum and Minimum temperature anomaly ( $^{\circ}\text{C}$ ) forecast for next 2 weeks (IC – 4 July)  
(6<sup>th</sup> July to 19<sup>th</sup> July 2018)



**Tmax (Maximum Temperature)**

- **Week 1 (06.07.2018 to 12.07.2018) and Week 2 (13.07.2018 to 19.07.2018):** Tmax is likely to be above normal over northern/northwestern parts of India and Indo-Gangetic regions region during week 1. During week 2 except NE states, Tmax is most likely to be below normal.

**Tmin (Minimum Temperature)**

**Week 1 (06.07.2018 to 12.07.2018) and Week 2 (13.07.2018 to 19.07.2018):** Tmin pattern is almost similar like Tmax during these periods.

## Strategic Agricultural Planning based on rainfall during next two weeks till 19<sup>th</sup> July 2018

### Agromet Advisories

#### **Kerala**

Rainfall received during the period of 01 June to 05 July 2018 over Kerala is 773 mm, which is 2% less than normal. The extended range weather forecast provided for next two weeks [week-1 (6-12 July 2018) and week-2 (13-19 July 2018)] is above normal for both the weeks.

- Rice is in tillering stage. Due to the prevalence of cloudy weather, there is chance for leaf folder infestation. Use 2CC trichogramma cards per acre. Cut the cards in to small pieces and fix in different parts of the field. If the attack is severe, spray flubendiamide 1ml per 10 litre of water or chlorantraniliprole 3ml per 10 litre of water, after the forecasted spell of rainfall.
- Banana: If infestation of pseudostem weevil is noticed, spray 2.5 ml of Chlorpyrifos or 2 ml of Quinalphos per one litre of water in leaf axils and by inserting the nozzle through the boreholes made by the larvae, after the forecasted spell of rainfall.
- Coffee: Leaf rust disease may become severe due to increase in relative humidity. Apply 0.5% Bordeaux mixture, after the forecasted spell of rainfall.

#### **Tamil Nadu**

Rainfall received during the period of 01 June to 05 July 2018 over Tamil Nadu is 81.1 mm, which is 50% excess when compared to the normal. The extended range weather forecast provided for next two weeks is below normal for both the weeks.

- Raise green manure crop like Dhancha and Sunhemb @ 20kg/ha and incorporate at 80% flowering (45-50 days) to improve the soil fertility.
- Prevailing weather condition is favourable for incidence of fruit borer in chilli. To control spray Flubendiamide 20% WDG 6.0G/10 lit (or) Thiodicarb 75% WP 2.0g/lit.

#### **Karnataka**

Rainfall received during the period of 01 June to 05 July 2018 over different meteorological sub-divisions of Karnataka viz, North Interior Karnataka (NIK): 115 mm (7% deficit), South Interior Karnataka (SIK): 192 mm (7% excess) and Coastal Karnataka: 1086 mm (2% excess). The extended range weather forecast provided is above normal during week-1 over all the subdivisions of the state; above normal over Coastal Karnataka, normal over NIK, below normal over SIK during week-2.

#### **South Interior Karnataka**

- Wherever sufficient rainfall is received, farmers are advised to go for sowing of kharif crops.
- Make use of farm pond water and this may be used for protective irrigation during the prevailing dry spell.
- Wherever, the long duration crops like pigeonpea, and castor has been sown, undertake earthing up.
- Agro forestry on the bund involving *Melia dubia* (Hebbevu), Silver oak and Causurina is recommended for sustainable income under abnormal extreme rainfall events.
- Recommended for medium to short duration crops like ragi (Indaf-5, 9, MR-6, GPU-28, 48, ML-365), maize (Ganga, Deccan, Vijaya composite and Composite NAC), groundnut (JL-24, KCG-2, GBBD-4),

cowpea (C-152, KM-5 and PKB-4 for vegetable purpose) and greengram (PS-16, PDM-84 & 178. Black gram: Karagao-3, T-9, Rashmi(LBG-625)

### **North Interior Karnataka**

- As soon as sufficient rainfall for sowing is received take up sowing of *khariif* crops like Black gram, Soybean, Maize, Bt. Cotton, Redgram, Bajra, Sesamum, Navane and Groundnut (spreading) may be taken up on preference.
- To make efficient use of available soil and water resources and to get higher returns, the following intercropping systems should be taken up in light and medium black soils. Pearl millet + Groundnut (spreading) in 2:4 row proportion ; Pearl millet + Pigeonpea in 2:1 row proportion ; Groundnut (spreading) + Pigeonpea in 3:1 or 4:2 row proportion, Pigeonpea + Sesame in 1:2 or 2:4 row proportion.
- Vaccinate livestock against Foot and Mouth disease (FMD vaccination), Black Quarter disease (BC vaccination) and Haemorrhagic Septicaemia.

### **Andhra Pradesh**

Rainfall received during the period of 01 June to 05 July 2018 over different meteorological sub-divisions of Andhra Pradesh is: Coastal Andhra Pradesh – 141 mm (9% excess) and Rayalaseema – 75 mm (3% deficit). The extended range weather forecast provided is above normal during week-1 over both the subdivisions of the state; normal over Coastal AP and below normal over Rayalaseema during week-2.

- Sowing of Rice nurseries and transplanting can be continued in Srikakulam, Vizianagaram, East and West Godavari, Krishna and Guntur districts under assured irrigation conditions and utilizing the rainfall received during the last week.
- Due to the receipt of deficit rainfall during last week over Kadapa and Kurnool districts, farmers are advised to wait until receipt of sufficient rainfall for taking up sowing of rainfed crops.
- Farmers of Chittoor district can take up sowing of rainfed groundnut utilizing the rainfall received during last week.
- Farmers of Kadapa, Kurnool, Ananthapuramu districts are advised to take up sowing of rainfed groundnut only after receipt of sufficient rainfall. They are advised to treat the seed with Imidacloprid @ 2ml/kg and Tebuconazole @ 1g/kg of seed before sowing.
- Farmers are advised to open conservation furrows at 3.6 m interval to conserve rainwater in rainfed crops.

### **Maharashtra**

Rainfall received during 01 June to 05 July 2018 over different meteorological sub divisions of the state viz., Konkan: 1210 mm (36% excess), Madhya Maharashtra: 187 mm (3% excess), Vidarbha: 229 mm (6% excess) and Marathwada: 192 mm (13% excess). The extended range weather forecast provided for next two weeks is: above normal over all the subdivisions of the state during both the weeks, except over Marathwada during week-2 (normal).

### **Marathwada**

- As late sowing of black gram / green gram results in low yield, sowing should be completed before 7<sup>th</sup> July.
- Weeding should be done in maize. Sowing of maize crop can be done up to 15<sup>th</sup> July.

## Konkan

- To treat red palm weevil affected coconut, 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 or 20% Chlorpyrifos with the help of plastic funnel in the hole and close the hole with the help of cement, after the forecasted spell of rainfall.
- Harvest the mature groundnut pods and dry them in sunshine for 4 to 5 days (care should be taken as rainfall is forecasted over next two weeks) and store them in dry place.

## Vidarbha

- In areas which received insufficient pre-sowing rains (Buldhana district), *kharif* crops should be sown only after the receipt of sufficient rains when there is assured soil moisture for germination.
- Under delayed sowing (beyond 1st week of July) reduce area under sole green gram and blackgram or include them as intercrops with slightly higher seed rate.
- For cotton in areas with delayed sowing condition, prefer early varieties of American and Deshi cotton, use 20 % more than recommended seed rate and reduce intra-row spacing. Early Bt cotton varieties may also be preferred.
- Feasible risk minimizing intercropping systems include cotton+greengram/blackgram (1:1), pigeon pea+greengram/blackgram/soybean (2:4), sorghum+greengram/pigeonpea (3:3) and cotton+sorghum+pigeonpea+sorghum (3:1:1:1), cotton+soybean+pigeonpea+soybean (3:2:2:2). Also in soybean after every 6 or 9 rows one row of pigeonpea may be sown.

## Madhya Maharashtra

- Sowing of pearl millet can be undertaken up to 15<sup>th</sup> July. Use recommended varieties –Shadha, Saburi, Shanti, Dhanskati, ICTP-8203 @ 3 kg of seed/ha. Apply 30 kg N and 30 kg P at the time of sowing.
- In sugarcane for the control of white grub, remove and destroy beetles from neem, babul and ber trees in the night with the help of kerosene and light lamps. For the control of stem borer, use 2 Trichocards per acre at an interval of 10-15 days.

## Chhattisgarh

The state as a whole has received 199 mm of rainfall during 01 June to 05 July 2018, which is 18% deficit. The extended range weather forecast provided for next two weeks is above normal for both the weeks.

- Nursery can be prepared over 1/10<sup>th</sup> part of the main rice fields. Use coarse grain rice seeds @ 50 kg per ha. Recommended seed rate for fine grain rice varieties is 40 kg per ha.
- Soybean and other pulses crops should be sown with proper drainage arrangement. Seeds may be treated with Rhizobium culture @ 5 g + PSB @ 10 g/ kg of seed.

## Odisha

The state as a whole has received 191 mm of rainfall during 01 June to 05 July 2018, which is 28% deficit. The extended range weather forecast provided for next two weeks is above normal for both the weeks.

- Continuous and heavy rainfall may cause Root rot, Stem rot & Anthracnose in Jute. To control, following plant protection measures are suggested after the forecasted spell of rainfall.
  - Root rot- For root rot spray Validamycin @ 0.2% or Propiconazole/Hexaconazole @ 0.1%
  - Stem rot- Validamycin @ 0.2% or Carbendazim + Mancozeb @ 0.2% spray at basal portion.
  - Anthracnose- Apply Copper oxychloride @ 0.3% or Carbendazim + Mancozeb @ 0.2%.

- Mite- For controlling of mite apply Propargite @ 2.5 ml/ltr of water or Spiromesifen @ 1ml/ltr of water.

### **Bihar**

The state as a whole has received 171 mm of rainfall received during 01 June to 05 July 2018, which is 19% deficit. The extended range weather forecast provided for next two weeks is normal for both the weeks.

- Farmers who have not paddy nursery are advised to complete the same at the earliest. Before sowing, seeds should be treated with Carbendazim @ 1.5 gram/kg of seed. Weeding is advised in 10-12 days old paddy nursery.
- Sowing of sunflower is advised in upland areas. Recommended varieties for North Bihar are: Mordane, Surya, C O-1, Pairadevik and DRSF-108 (Composite) and BSH-1, KBSH-1, KBSH-44 and MSFH-1, MSHF-8 (Hybrid).
- Sowing of sesame is also recommended with Krishna, Kaakeesafed, Kalika, Pragati varieties for North Bihar

### **West Bengal**

Rainfall received over Sub-Himalayan West Bengal (SHWB) is 612 mm rainfall (3% excess) and Gangetic West Bengal is 236 mm (21% deficit) during 01 June to 05 July 2018. The extended range weather forecast provided is below normal for both the weeks over SHWB and normal for both the weeks over Gangetic West Bengal.

- Jute: In the present weather condition, attack of root and stem rot may be prevalent. To control the diseases, apply 0.1 % Carbendazim or 0.25 % Mancozeb, after the forecasted spell of rainfall. The attack of insect-pests such as thrips, mites and caterpillar may be observed. For caterpillar control, no need of spraying insecticide. Only collect the insects for burning. For mite control apply Monocrotophos (@ 1.5 ml per litre of water) and after one week again apply Propargite/Simba (@1.5 ml per litre of water).
- Pointed gourd and Bottle gourd: In this weather, fruit rot may be seen. Avoid direct contact of fruits with soil and spray Ridomyl- MZ @2.5 g/ litre of water or similar type of chemical composition, after the forecasted spell of rainfall.
- Sweet-gourd: In this weather, attack of powdery mildew may be seen. If spots like white powder are seen on the leaves, stem and fruits, apply 1ml Tridomorf or 1ml Dinocap per litre of water, after the forecasted spell of rainfall.

### **Rajasthan**

Rainfall received over West Rajasthan and East Rajasthan is 59 mm rainfall (37% excess) and 109 mm (25% excess), respectively during 01 June to 05 July 2018. The extended range weather forecast provided is below normal for week-1 and above normal for week-2 over both subdivisions.

- Farmers are advised to treat the seed with Carboxine 75 WP @ 2g/kg seed for the control of collar rot in soybean. Seed should also be treated with rhizobium culture in soybean. This will save 1 kg N/ha.
- Since sufficient soil moisture is available, farmers can go for sowing of maize, soybean, bajra, sorghum, groundnut within 1-2 days. Recommended varieties for maize are Aravali Makka-1, Pratap



Makka-3, Pratap Makka-5, Pratap Hybrid-1, Bio-9637 and for soybean: PK-472, JS-335, Pratap Soya-1, Pratap Soya-2, Pratap Raj Soya-24. Sorghum varieties: CSV-15, CSV-17, Pratap Jowar-1430, CSV-23.

- Farmers are advised for sowing of bajra and cluster bean in western and eastern parts of the state. The improved varieties of Bajra are HHB-67, Raj-171, ICMH-356, RHB-121, RHB-173, and for clusterbean: RGC-197, RGC-936, RGC-986, RGC-1002 & 1003, RGC-1033. Use seed rate of 15-20 kg/ha with application of 10 kg N/ha and 40 kg P<sub>2</sub>O<sub>5</sub>/ha at sowing.

### **Assam**

Rainfall received over Assam is 475 mm rainfall (22% deficit) during 01 June to 05 July 2018. The extended range weather forecast provided is below normal for both weeks.

- As below normal rainfall is forecasted for next two weeks, farmers are advised to wait for rain for transplantation of *Sali* rice seedlings.
- Farmers are recommended to go for planting of rooted slips of fodder crops like Hybrid Napier, Italian millet, Guinea grass etc. may be planted at a spacing of 45 cm or raised as intercrop in the arecanut and coconut orchards. These plants can be used as feed material for cows, buffaloes, goats and other livestock during the whole year.

### **Punjab**

Punjab has received 134 mm of rainfall during 01 June to 05 July 2018, which is 98% excess. The extended range weather forecast provided for next two weeks is below normal for week-1 and normal for week-2.

- Complete the transplanting of paddy during the period but before transplanting, treat the paddy nursery with Azorhizobium and dip the nursery in mixture for 45 mins and transplant immediately.
- It is optimum to transplant the nursery of Punjab Basmati 5, 4, 3 & 2 and Pusa Basmati 1121. Treat the nursery before sowing to control foot rot.
- Brinjal fruit and shoot borer attack can be checked by spraying 800 ml Quinalphos or 500 ml Triazophos or 100 Fenvalerate or 200 ml Cypermethrin or 160 ml Deltamethrin in 100-125 ml of water per acre.

### **Jammu**

Rainfall received during 01 June to 05 July 2018 over Jammu is 131 mm, which is 52% excess. The extended range weather forecast provided for next two weeks over Jammu is: below normal for week-1 and normal for week-2.

- Sowing of maize (var. Vivek-25, Vivek QOM-9, HM-5 and HQPM-1) with seed rate of 20-30 kg/ha is recommended during week-2. Treat the seed with Bavistin @ 3g/kg of seed to manage soil borne diseases. If available, incorporate 15 tonnes of well rotten FYM or Compost/ha into the soil thoroughly with the first ploughing, which will reduce fertilizer dose by 25%.
- Farmers can go for the transplanting of rice seedlings which have attained 4-6 leaves (varieties: China-1039, IET-1410, Ratna, PC-19, SJR-5 & Jaya) during week-2. Keep the rice nursery and bund free from weeds.

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