



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

Validity: 16 to 29 November 2018

Date of issue: 16 November 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

(1st November 2018 to 14th November 2018)



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

Extended Range Forecast System

Rainfall forecast maps for the next 2 weeks (IC – 14 November)
(16th to 29th November 2018)



Extended Range Rainfall Forecast

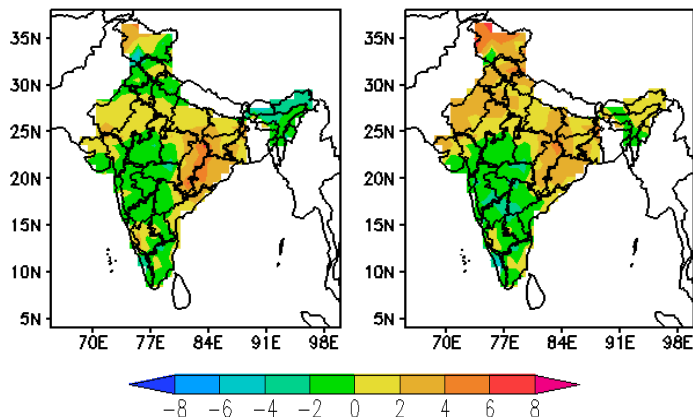
- **Week 1 (16.11.2018 to 22.11.2018):** Above normal rainfall is expected over Arunachal Pradesh, Rayalaseema, Kerala, Tamil Nadu, Lakshadweep and Andaman & Nicobar Islands during week 1.
- **Week 2 (23.11.2018 to 29.11.2018):** Above normal rainfall is expected over Jammu & Kashmir, Gujarat, Konkan & Goa, Madhya Maharashtra, Chhattisgarh, Telangana, Andhra Pradesh, Karnataka, Tamil Nadu, Kerala and Lakshadweep. Normal rainfall expected over Himachal Pradesh, Punjab, Marathwada and Odisha during week 2.

**Maximum and Minimum temperature anomaly ($^{\circ}\text{C}$) forecast
for next 2 weeks (IC – 14 November)
(16th to 29th November 2018)**

MME Bias Corrected Tmax Anomaly (Deg)

(Week1: 16Nov–22Nov)

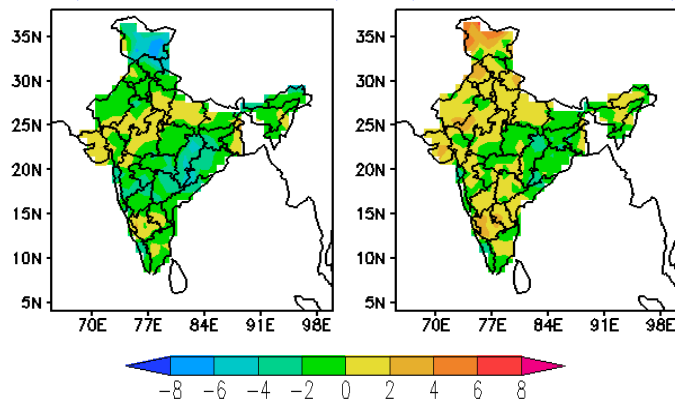
(Week2: 23Nov–29Nov)



MME Bias Corrected Tmin Anomaly (Deg)

(Week1: 16Nov–22Nov)

(Week2: 23Nov–29Nov)



Maximum Temperature (Tmax)

- **Week 1 (16.11.2018 to 22.11.2018) and Week 2 (23.11.2018 to 29.11.2018):** Western part of India (Maharashtra and west MP) and south peninsula is expected to be slightly below normal, whereas rest of India is expected to be above normal. The Tmax anomaly over Odisha, Chhattisgarh, Jharkhand, Bihar, GWB, Rajasthan and adjoining region is expected to be 4 to 6 degree C above normal. Warming over NW India increases during week 2.

Minimum Temperature (Tmin)

- **Week 1 (16.11.2018 to 22.11.2018):** Mostly below normal Tmin during week 1 over most of India.
- **Week 2 (23.11.2018 to 29.11.2018):** Mostly below normal Tmin over the eastern coastal states of India, whereas normal to slightly above normal over rest of India.

Strategic Agricultural Planning based on rainfall during next two weeks till 29th November 2018

Agromet Advisories

Kerala

Rainfall received during the period from 01 October to 15 November 2018 over Kerala is 340.1 mm, which is 13% deficit than normal. The extended range weather forecast provided for next two weeks (16 to 22 and 23 to 29 November) is above normal for both the weeks.

- 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.
- 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.
- There is a chance of spodoptera in vegetables. Destroy the affected leaves along with the spodoptera. If spodoptera attack is severe, spray quinolphos 2ml per one litre of water or chlorantraniliprole 3 ml per 10 litre of water.
- Farmers are advised to spray Quinalphos (0.05%) 400 ml in 200 litres of water against coffee berry borer.

Karnataka

Rainfall received during the period from 01 October to 15 November 2018 over different meteorological subdivisions of Karnataka viz, North Interior Karnataka is 39.9 mm (69% deficit), South Interior Karnataka is 104.7 mm (41% deficit) and Coastal Karnataka is 158.4 mm (30% deficit). The extended range weather forecast provided for 16 to 22 and 23 to 29 November over North Interior Karnataka, South Interior Karnataka and coastal Karnataka is below normal for week-1 and above normal for week-2.

South Interior Karnataka

- If Wilt diseases noticed in field, drenching of carbendazim 50 WP 2 g/litre of water is advised.
- Remove and burn the wilt infected plant in field.
- Use short duration ragi varieties like GPU 26,45, 48 and Indaf 7,9 & 15 for sowing when rain received.
- If ragi blast disease noticed, spray Mancozeb @ 2 gram/litre (100 gram/acre) or Zainab @2.5 gram/litre (500 gram/acre).

Tamil Nadu

Rainfall received during the period of 01 October to 15 November over Tamil Nadu is 203.3 mm, which is 27% deficit as compared to the normal. The extended range weather forecast provided for next two weeks (16 to 22 and 23 to 29 November) is above normal for both the weeks.

- As rainfall is expected in the coming days apply fertilizers to dry land crops @ NPK kg/ha viz Cotton 40:20:40, Sorghum 40:20:0, Maize - 60: 30: 30 for Alfisols and 40: 20: 0 for Vertisols and Pulses 12.5: 25: 12.5 NPK/ha.
- Leafhopper incidence is noticed in cotton. To control spray Imidacloprid 200 SL 100 ml/ha or Fipronil 5%SC 1500-2000 ml/ha.
- Yellow mosaic virus was noticed in pulses. Foliar spray of neem formulation 3 ml/litre or spray dimethoate 30 EC 500 ml/ha and repeat after 15 days, if necessary.

- Root rot incidence is noticed in cotton. To control root rot disease, spot drench with 0.1% Carbendazim or 0.05% Benomyl.
- Possibility of leaf folder infestation in maize. To control spray, azadirachtin 0.03% 1000 ml/ha or chlorpyrifos 20 EC 1250 ml/ha.

Maharashtra

Rainfall received during 01 October to 15 November 2018 over different meteorological sub divisions of the state viz., Konkan: 57.2 mm (57% deficit), Madhya Maharashtra: 27.9 mm (69% deficit), Vidarbha: 0.4 mm (99% deficit) and Marathwada: 10.9 mm (87% deficit). The extended range weather forecast provided for next two weeks (16 to 22 and 23 to 29 November) for Madhya Maharashtra, Konkan region is below normal, over Marathwada and Vidarbha no rainfall for week-1 and above normal over Madhya Maharashtra and Konkan, normal over Marathwada and below normal over Vidarbha for week-2.

Marathwada

- Protective irrigation should be applied with an interval of 15 days. Top dressing of nitrogen @ 75 kg should be done in maize crop. To control fall army worms in maize crop spray Thiamethoxam 12.6 % + Lambda cyhalotrin 9.5 % @ 50 ml per acre.
- Apply 40 kg Nitrogen per hectare with the help of Urea 30 DAS in irrigated rabi sorghum and irrigate it. To control attack of stem borer in irrigated rabi sorghum remove dead hearts from the field and destroy them, take a spray of Quinalphos 25 % @ 600 per acre. Insecticide should be spray in the whorl of plant.
- To control powdery mildew disease in chilli, spray Sulphur 80 % WP @ 25 gm or Myclobutanil 10 % WP @ 10 gm per 10 litre of water. Irrigation management should be applied in vegetable crops.
- Due to low temperature some animals like Goats, Sheeps specially may be suffering through nasal discharge or blowing of nose. To control this problem put two drop of eucalaptus oil in nose.

Konkan

- Due to increase in maximum temperature, provide irrigation to banana orchard at 7-8 days interval.
- Harvest the matured finger millet crop in morning hours by cutting ear head with sickle and dry it in the sun for 2-3 days and then follow threshing.
- For cultivation of *rabi* groundnut, carryout ploughing operation and incorporate 10 tonnes/ha FYM or compost in soil.
- Due to increase in temperature, provide irrigation to grafts, sapling and vegetable nursery regularly.

Bihar

Rainfall received over Bihar during 01 October to 15 November 2018 is 17.5 mm, which is 75% deficit. The extended range weather forecast provided for next two weeks (16 to 22 and 23 to 29 November) is below normal for week-1 and no rain for week-2.

- Sowing of gram is advised after 15 November. Pusa-256, KPG-59 (Udai), and Pusa-372 varieties of gram are recommended for sowing in north Bihar region. Seeds should be treated with Vitavax @2.0 gm/kg.
- Sowing of *rabi* maize is advised. Application of 10-15 ton FYM ,60 kg nitrogen, 75 kg phosphorus 50 kg Potash per hectare during land preparation is recommended.
- Monitoring is advised in brinjal crop for fruit and shoots borer infestation. If pest population exceeds ETL (Economic Threshold Level), spraying of Spinosad 48 EC @1ml/4 liters of water is advised. Infested fruits and shoots should be collected and buried before spraying.

Uttar Pradesh

Amount of rainfall received over East Uttar Pradesh region is 0.4 mm (99% deficit) and West Uttar Pradesh is 7.2 mm (84% deficit) during 01 October to 15 November 2018. The extended range weather forecast provided for two weeks (16 to 22 and 23 to 29 November) for west Uttar Pradesh is below normal and no rain over east Uttar Pradesh for week-1 and below normal rainfall for both east and west Uttar Pradesh for week-2.

- Mulching and interculture operation should be made in the field.
- Irrigation channel should be kept free from weeds.
- Land preparation and sowing of Wheat, Barley, Mustard, late sown pulses and potato crops.

Odisha

Rainfall received over Odisha during 01 October to 15 November 2018 is 121.2 mm, which is 8% deficit. The extended range weather forecast provided for next two weeks (16 to 22 and 23 to 29 November) is below normal for week-1 and normal for week-2.

- Farmers are advised to grow high yield varieties of garlic like Phawari, Rajalbadi, Jamnagar and G-282. Use 150 kg seed material per acre. Apply 24:24:24 kg NPK per acre as basal along with 15 tons of FYM. Sow the seeds at 8 cm apart, maintaining a row spacing of 20 cm.
- The rainfed mustard is at 15 to 20 days stage. Go for hoeing and weeding. Thin out the plants and maintain optimum plant population. Spray 400 ml Dimethoate per acre for controlling aphids.

Rajasthan

Amount of rainfall received over East Rajasthan region is 1.4 mm (93% deficit) and West Rajasthan is 0.5 mm (93% deficit) during 01 October to 15 November 2018. The extended range weather forecast provided for two weeks (16 to 22 and 23 to 29 November) for West and East Rajasthan is no rain for week-1 and below normal for week-2.

- In mustard, hoeing and thinning should be done where crop is at 15 to 20 days and keep plant to plant distance 10-20 cm. Top dressing of 30 kg nitrogen should be done along with irrigation where the crop attain 30-35 days.
- This is right time for normal sowing of wheat as the mean temperature around 20⁰C is suitable for sowing of wheat for getting higher yield. The improved varieties are Raj-4037, Raj-3077, Raj- 3765, HD-2864, GW-322, Raj-1555, HI-8498, HI-1544 and Lok-1.

- Sowing of pea should not be delayed, because late sowing reduces the seed yield and exposes the crop to insect damage.
- Farmers are advised to complete the sowing of lucerne and berseem for green fodder and oats for dual purpose during this week. The improved varieties of dual purpose oats are Kent, UPO-212, JHO-822.

Assam

Rainfall received over Assam is 56.1 mm (67% deficit) during 01 October to 15 November 2018. The extended range weather forecast provided for next two weeks (16 to 22 and 23 to 29 November) is below normal for both the weeks.

- Farmers are advised to continue the land preparation and planting of potato. Apply 19 kg urea, 45 kg SSP and 12 kg MOP per bigha during the time of final land preparation. Select recommended potato varieties like Kufri Chandramukhi, Kufri Jyoti, Kufri Megha, Kufri Badshah, Kufri Sindhuri, Pukhraj etc for higher production.
- 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 etc. For planting one bigha of land with a spacing of 75 cm × 60 cm (Row to Row × Plant to Plant) 95-105g seeds are required.
- To protect poultry birds from cold injury increase the depth of bedding material (litter) up to six inches.

Punjab

Rainfall received over Punjab is 5.1 mm rainfall (79% deficit) during 01 October to 15 November 2018. The extended range weather forecast provided for next two weeks (16 to 22 and 23 to 29 November) is no rain for week-1 and normal rain for week-2.

- It is optimum time for sowing of wheat crop.
- Farmers are advised to sow early sown wheat varieties i.e. Unnat PBW 343, PBW 1 Zn, PBW 725, PBW 677, HD 3086, WH 1105, HD 2967, PBW 621. Sowing should be done with the help of happy seeder.
- Farmers can sow PBW 550, Unnat PBW 550 from mid November.
- Farmers are advised to treat wheat seed with 13 ml Raxil Easy/Orius 6 FS by dissolving in 400 ml water or 120 g Vitavax Power 75 WS or 80 g Vitavax 75 WP or 40 g Seedex 2 DS/Exzole 2 DS per 40 kg seed.

Haryana

Rainfall received over Haryana is 4.2 mm rainfall (78% deficit) during 01 October to 15 November 2018. The extended range weather forecast provided for next two weeks (16 to 22 and 23 to 29 November) is no rain for week-1 and below normal for week-2.

- Possibility of dry weather condition, farmers are advised for picking the cotton. The picking should be done after sun rise when dew evaporates from cotton ball.
- Farmers are advised to select recommended wheat varieties like WH 283, WH 542, DBW 17, WH 711, WH 1105. Before sowing seeds should be treated with Bavistin or Vitavex 2.0 g per Kg of seed.
- Apply requirement based irrigation in Sugarcane.
- Recommended varieties of Barley are BH 393, BH 902, BH885, BH 986. Before sowing, seeds should be treated with Bavistin or Vitavex 2.0 g per 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.

Himachal Pradesh

Himachal Pradesh has received 35.0 mm of rainfall during 01 October to 15 November 2018, which is 30% deficit. The extended range weather forecast provided for next two weeks (16 to 22 and 23 to 29 November) is below normal for week-1 and normal for week-2.

- Before rabi crop sowing, farmers are advised to add well decomposed FYM or compost as it improves the physical and biological properties of the soil and also increases water retention and nutrient status of the soil.
- Complete mustard sowing immediately.
- Sowing of timely sown wheat (varieties) may be continued.
- For sowing, farmers are advised to arrange quality seeds.
- Farmers are advised for application of manure and fertilizer in mango and other orchard gardens

Jammu

Rainfall received during 01 October to 15 November 2018 over Jammu is 89.2 mm, which is 77% deficit. The extended range weather forecast provided for next two weeks (16 to 22 and 23 to 29 November) over Jammu is below normal for week-1 and above normal for week-2.

- Sowing of mustard crop var. (RSPR-01, Kranti) can be taken up in irrigated areas whereas under rainfed areas sowing of RSPR-03 can be carried on fields having conserved moisture.
- Farmers are advised to complete the sowing of chickpea (var. GMG-1581, C-235, SCS-3 and Shivani) in irrigated and rainfed areas. Dip the seeds in water for 3-4 hours for easy germination.
- Sowing of Pea (var. AP-1, Bonnevillea, Rachna and Arkel) may be completed in rainfed areas and taken up to 25 November in irrigated areas.
- The sowing of potato, radish, carrot, garlic, peas and spinach can be done.
- Raise nursery for onion crop (Pusa Red, Pb. Selection).

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