



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

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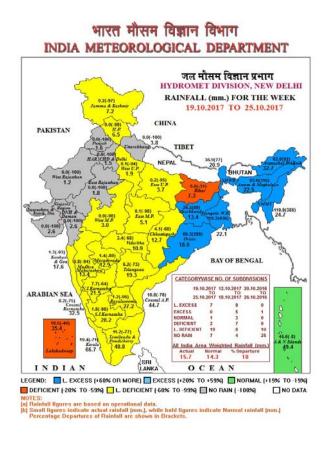
Indian Council of Agricultural Research (ICAR)
All India Coordinated Research Project on Agricultural Meteorology (AICRPAM),
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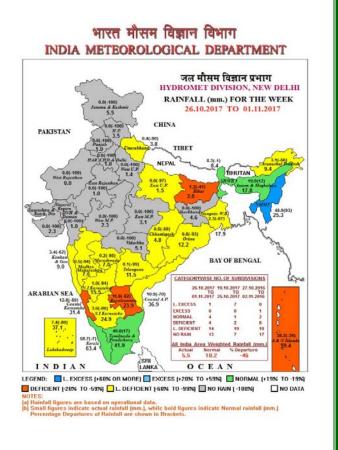
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Earth System Science Organization India Meteorological Department

Realized Rainfall and Extended Range Forecast (Rainfall and Temperatures)



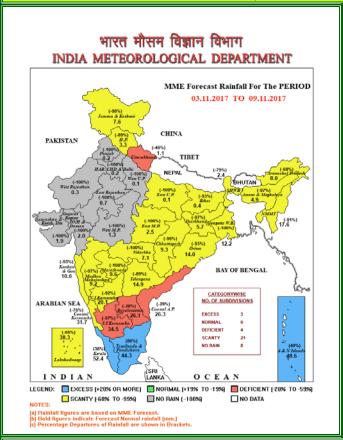


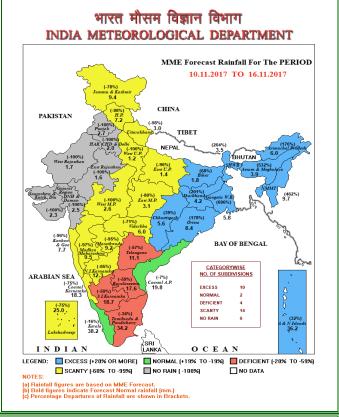


- Normal or above normal rainfall occurred during last two weeks in Assam & Meghalaya, Nagaland, Manipur, Mizoram and Tripura and Sub-Himalayan West Bengal & Sikkim.
- Normal or above normal rainfall occurred in either of the last two weeks in Arunachal Pradesh, Jharkhand, Odisha, Gangetic West Bengal, Kerala, Tamil Nadu and Andaman & Nicobar Islands.
- Below normal rainfall/no rain occurred in the last two weeks over Jammu & Kashmir, Uttarakhand, Himachal Pradesh, Punjab, Haryana Chandigarh & Delhi, Rajasthan, Gujarat, Maharashtra, Madhya Pradesh, Chhattisgarh, Uttar Pradesh, Bihar, Karnataka, Telangana, Andhra Pradesh and Lakshadweep.

Extended Range Forecast System

Subdivisionwise rainfall forecast maps for the next 2 weeks (IC – 01 November) (3rd to 16th November 2017)



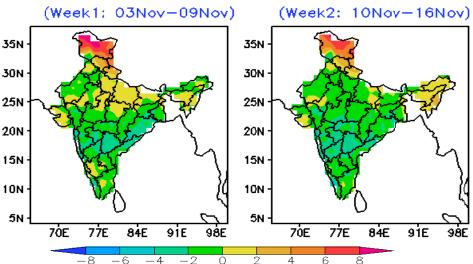


- Extended Range Forecast (ERF) indicates that, during week 1 (3 November 9 November), Tamil Nadu and Kerala is likely to get normal to above normal rainfall. Remaining regions of India is likely to get below normal rainfall.
- During week 2 (10 November 16 November), the meteorological subdivisions over eastern coastal states (Odisha, Bihar, Jharkhand, Chhattisgarh and West Bengal) and northeastern states are likely to get above normal rainfall. The remaining regions of India will get below normal rainfall.

Forecasted Deviation of Maximum and Minimum temperatures (^oC) for next 2 weeks (IC – 01 November) (3rd to 16th November 2017)

MME Bias Corrected Tmax Anomaly (Deg (Week1: 03Nov-09Nov) (Week2: 10Nov-16Nov) 35N 35N 30N 30N 25N 25N 20N 20N 15N 15N 10N 10N 5N 84E 70E 84E 91E 9iE

MME Bias Corrected Tmin Anomaly (Deg



- Tmax (Max. Temperature): Above normal Tmax likely over most of north-west and north India during week 1. The parts of central India and eastern coastal regions likely to have below normal Tmax during the week 1. During week 2, some parts of eastern coastal states and Northeast states will have below normal Tmax and the remaining regions of India will be having above normal Tmax.
- Tmin (Min.Temperature): During week 1, Tmin is likely to be below normal over most of India except parts of extreme north India and Indo-Gangetic plains. During week 2, mostly below normal Tmin likely over the country except isolated pockets over Northeastern states and parts of extreme northern India.

Strategic Agricultural Planning based on rainfall during next two weeks till 16th November 2017 Agromet Advisories

Tamil Nadu

Rainfall received during the period of 01 October to 01 November 2017 over Tamil Nadu is 164.5mm, which is 12% deficit compared to the normal. The extended range weather forecast provided for next two weeks [03 to 09 November (week1) and 10 to 16 November (week-2)] for Tamil Nadu is excess and deficient, respectively. Due to the heavy rainfall received during last week, many parts of the state are facing severe flood condition.

- As per the forecast, excess rainfall is expected during 3-9 November. Farmers are advised to avoid irrigation in sorghum, maize, cotton and pulses fields. Drain out excess water from paddy field.
- Present weather condition is conducive for the spreading of sucking pest in sorghum, pulses and cotton. For its control, spray Dimethoate 30 EC 500 ml/ha (or) Neem Seed Kernel extract 5%.

Kerala

Rainfall received during the period of 01 October to 01 November 2017 over Kerala is 238.5 mm, which is 21% deficient compared to the normal. The extended range weather forecast provided for next two weeks (03 to 09 November and 10 to 16 November) for Kerala is excess for week-1 and normal for week-2.

- Moderate to heavy rain is expected. Field preparation for the next crop shall be started with land preparation and application of lime @ 140 kg/ha or dolomite @ 80 kg/ha.
- Pre-geminated rice seeds can be broadcasted 3-4 days after water has evaporated. Soak seed for 12 to 16 hours in a solution of *Pseudomonas fluorescens* @ 10 g/litre of water per kg of seed or Carbendazim 2 g/kg of seed per litre water.
- Prevailing weather condition may favour the incidence of sigatoka leaf spot in banana. Application of Propiconazole 1 ml/ litre of water is effective against the disease.

Karnataka

Rainfall received during 01 October to 01 November 2017 over different meteorological subdivisions of Karnataka are follows: South Interior Karnataka: 178.9mm (19% surplus); North Interior Karnataka: 149.3 mm (31% surplus) and Coastal Karnataka: 188.3 mm (2% deficit). The extended range weather forecast provided for next two weeks: South Interior Karnataka (deficient for both weeks); North Interior Karnataka (Large deficient for both weeks) and Coastal Karnataka (Scanty for both weeks).

South Interior Karnataka

- Farmers are advised for the land preparation for sowing *rabi* crops, wherever assured irrigation is available.
- Recommended crops and varieties for *rabi* season are short duration crops like finger millet (Indaf-9, GPU- 45 & 66, PR-202), cowpea (KBC-1, TVX-944), Sunflower (Morden, KBSH-1,41,44 & 52) and Niger (KBN-1, No-71). In black soils, chick pea (Annigeri-1, J.J-

- 11, KAK-2, Vishal) can be sown.
- Pruning in grapes can be continued as no rainfall is forecasted.

North Interior Karnataka

- Farmers are advised to complete the sowing of chickpea immediately, wherever irrigation facilities are available.
- Harvesting, threshing and drying of maize, groundnut, soybean and other crops can be undertaken, since the prevailing weather and weather during next five days is suitable.
- In medium black soils, sowing of sunflower, chickpea, diccocum wheat under irrigated condition may be taken up.

Andhra Pradesh

Rainfall received during the period of 01 October to 01 November 2017 over meteorological sub divisions of the state are: Rayalaseema: 225.4 mm (69% excess); Coastal AP: 127.2 mm (36% deficient). The extended range weather forecast provided for next two weeks for Rayalseema: deficient for both the weeks; Coastal AP: deficient for week-1 and normal for week-2.

- In black soil areas of Ananthapuramu, Kadapa, Kurnool, Prakasam, Guntur districts farmers are advised to complete sowing of bengalgram, sunflower crops utilizing the available soil moisture and to start planting of tobacco in Kurnool, Prakasam, Guntur and Godavari districts.
- Farmers of Godavari, Krishna zones and Nellore, Chittoor, Kurnool districts can take up sowing of upland black gram crop. Farmers are advised to select YMV resistant varieties like GBG 1, PU 31 and TBG 104 and follow seed treatment with Imidacloprid or thiomethoxam @5ml/kg and mancozeb@3g/kg of seed.
- Farmers of North coastal AP, Southern zone and scarce rainfall zone can take up sowing of *rabi* groundnut under irrigated conditions up to 15th December.
- In scarce rainfall zone and southern zone, where June and July 1st FN sown groundnut is at harvesting stage, farmers are advised to complete harvesting and stripping of groundnut/heaping of the harvested produce to avoid wetting in rain.
- Leaf folder incidence is observed in paddy crop in southern zone and north coastal zone, BPH and sheath blight incidence noticed in north coastal zone. For control of leaf folder spray chloripyriphos 2.5 ml or cartaphydrochloride @ 2 g/l of water, Flubendiamide@0.2ml/l of water. For control of BPH and Sheath blight, spray Acephate @1.5% and Hexaconazole@2ml/l of water.

Maharashtra

Rainfall situation

Rainfall received during the period of 01 October to 01 November 2017 over meteorological sub divisions of the state: Vidarbha: 57.5 mm (4% deficient); Marathwada: 100.4 mm (37% surplus); Madhya Maharashtra: 112.8 mm (41% surplus) and Konkan: 157.0 mm (29% surplus). The extended range weather forecast provided for next two weeks for all the subdivisions of state Maharashtra are scanty for both the weeks.

Vidarbha

- Irrigated wheat (AKW-3722, HD-2380, HD-2189, AKW-1071) and Mustard (Pusa bold, ACN-9) can be sown up to first week of November.
- For controlling cotton boll worm, apply spinosad 45% SC @ 2.25 ml or chlorantraniliprole 18.5% SC @ 3ml per 10 litres of water.
- To control pigeonpea pod fly/ pod borer, undertake first spray at bud initiation with neem kernel seed extract 5% or Quinolphos 25% @ 28 ml per 10 litres of water followed by subsequent two sprays at 15 days interval of (1) Emamectin benzoate 5% SG @ 4.5g or Indoxacarb 15.8% EC @ 6.7ml. Avoid pod picking till 10 days after insecticidal spray.
- Transplanting of cabbage and cauliflower, and seed sowing of radish, carrot, leafy vegetables and onion nursery can be initiated during this period, wherever assured irrigation facilities are available.

Madhya Maharashtra

- For the management of fruit rot and wilt in tomato spray Mancozeb 25 gm + Tebuconazol 5 ml per 10 liters of water.
- As there is possibility of rainfall at few isolated places, harvesting of matured soybean should be done at proper time and harvested produce should be kept at safe place. Care should be taken that the moisture content in the seeds should be less than 12% while storing it.
- Chickpea: sowing should be completed for dryland gram considering the soil moisture. For sowing use digvijay, vijay, jacky 9218 varieties. Before sowing seed should be treated with thiaram or bavistin 2 gm per kg and trichoderma 5 gm per kg of seed. After this apply rhizobium culture 250 gm per 10 kg of seed. While sowing the seeds, mix few seeds of sorghum within it so that these may serve as bird perches when they grow up.

Odisha

Rainfall situation

Rainfall received during the period of 01 October to 01 November 2017 over Odisha is 161.0 mm, which is 43% excess to the normal. The extended range weather forecast provided for next two weeks for Odisha is scanty for week-1 and excess for week-2.

- The current weather is favourable for BPH attack in rice, which is now a serious concern for the farmers of the state. To control BPH, farmers are recommended as to drain out water from the field. Spray carbaryl 50 WP @ 1500 g ha⁻¹ or acephate 50 WP @ 1200 g ha⁻¹ or fipronil 5 SC @ 1000 ml ha⁻¹. Spray the chemical during afternoon. Repeat application if hopper population persists beyond a week after application. The repeated use of same insecticide may be avoided.
- Sowing of *rabi* groundnut can be taken up in the coming week. High yielding varieties like Smruti, TAG-27, TAG 24 and JL-24 are recommended with a seed rate of 60 kg pods /acre. Treat the seeds with 1.5 g Carbendazim or 3 g Thiram/kg of seeds one week before sowing. Use PSBculture and Rhizobium culture one week after fungicidal treatment i.e. on

- the sowing day. Apply 2 tonnes of FYM along with 8:16:8 kg NPK per acre as basal. Sow the seeds 10 cm apart maintaining a row spacing of 30cm.
- Sowing of sunflower can be taken up. Choose high yielding varieties like Morden, Sunrise, Surya and Hybrid varieties like KBSH-1, KBSH-3 and MSFH. Use 4 kg seeds/acre for high yielding varieties for rainfed condition, 3.5 kg for irrigated condition, 2-2.5 kg seeds/acre for hybrid varieties under rainfed condition and 1.5-2 kg seeds for irrigated condition. Before sowing treat the seeds with 2 g Carbendazim/kg seed.

Madhya Pradesh

Rainfall situation

Rainfall received during the period of 01 October to 01 November 2017 over meteorological sub division of the state: West Madhya Pradesh: 13.5 mm (61% deficient), and East Madhya Pradesh is 18.8 (51% deficient). The extended range weather forecast provided for next two weeks is no rain (West MP) and scanty (East MP) for week-1 and scanty for week-2 for both the sub divisions.

- Farmers are recommended to start sowing of *rabi* chickpea, toria, mustard, pea, and lentil, wherever assured irrigation facilities are available.
- Farmers are also advised to procure seeds of wheat as per the region and availability of irrigation facilities in their area.

Jharkhand

Rainfall situation

Rainfall received during the period of 01 October to 01 November 2017 over Jharkhand is 104.0 mm, which is 37% excess to the normal. The extended range weather forecast provided for next two weeks for Jharkhand is scanty for week-1 and excess for week-2.

- Field in which soil moisture is available after harvesting of rice, may be used for sowing of wheat. After harvesting of rice, field may be divided into smaller plots according to slope & construct channels for irrigation. The seed rate should be 60 kg per acre and should be treated with cowdung mixed in water in such a manner that one layer of cowdung remains above the seeds and the seeds doesnot adhere each other. Sowing may be done by broadcasting of seeds in such a manner that seed sticks in soil and apply recommended dose of fertilizer after 15 days of sowing.
- Sowing of linseed (cultivars Sweta, Shubhra, T-397 etc.) is recommended. Seed rate is 8-9 kg/acre,
- Sowing of wheat cultivars like HDR-77, K-8027 and Birsagenhu 3 is recommended. Seed rate recommended is 50 kg/acre. Spacing should be 22 cm (Row to row) and 7 cm (Plant to plant). Before sowing, seed should be treated with fungicide like Bavistin.

Bihar

Rainfall situation

Rainfall received during the period of 01 October to 01 November 2017 over Bihar is 49.6 mm, which is 24% deficient to the normal. The extended range weather forecast provided for next two

weeks for Bihar is scanty for week-1 and excess for week-2.

- Land preparation is advised for sowing of wheat. Application of 150-200 quintals FYM manures/ha is advised during land preparation.
- Planting of potato varieties Kufri spp., Rajendraalu 1, Rajendraalu 2 and Rajendraalu 3 in north Bihar region is recommended. Seed rate @ 25-30 q/ha and a spacing of row to row 50-60 cm and plant to plant 15-20 cm planting distance are advised. Application of 20-25 ton FYM/ha, 75 kg nitrogen, 90 kg phosphorus and 100kg potash is advised during land preparation.
- Sowing of rabi maize is advised. Application of 10-15 ton FYM, 50 kg nitrogen, 75 kg phosphorus 50 kg Potash per hectare during land preparation. Shaktiman-1 white, Shaktiman-2 white, Shaktiman-3 yellow, Shaktiman-4 yellow, Shaktiman-5 yellow, Ganga-11 orange yellow, Rajendrasanker makka-1 Rajendrasanker makka-2, and Rajendra sankermakka deepjwala varieties of hybrid maize and Dewki white, Lakshmi white and Suaan yellow varieties of composite maize are recommended for north Bihar. A seed rate of 20 kg/ha is advised. Seed should be treated with Thiram @2.5g /kg of seed.
- Nursery sowing of rabi onion is advised. Agrifound Light Red (ALR), Arka niketen, N-2-4-1, Pusa-red, Bhimaraj, Nashik red varieties are recommended for sowing in north Bihar. Seed rate@8-10 kg/hectare is advised.

Rajasthan

Rainfall situation

Rainfall received during the period of 01 October to 01 November 2017 over meteorological subdivision of the state Rajasthan: West Rajasthan and East Rajasthan has never received rainfall over the period which is 100% deficient. The extended range weather forecast provided for next two weeks for Rajasthan has no rain for both the weeks.

- Complete threshing of maize, sorghum, soybean and pulses. Before storing the kharif produce, grains should be sun dried to ensure that seed moisture should be around 12-14 %.
- Start sowing of lucerne and berseem for green fodder and oats for dual purpose in irrigated area. The improved varieties of dual purpose oats are Kent, UPO-212, JHO-822. Berseem: Muscavi and Wardan, Lucerne: Anand-2 and RL-88
- Field should be prepared for sowing of wheat in next week, wherever the irrigation is available. The mean temperature around 20°C is suitable for sowing of wheat for getting higher yield. The normal sowing of wheat is from 1st of November to 3rd week of November. The improved varieties are Raj-4037, Raj-3077, Raj- 3765, HD-2864, GW-322, Raj-1555, HI-8498, HI-1544 and Lok-1.

Uttar Pradesh

Rainfall Situation

Rainfall received during the period of 01 October to 01 November 2017 over meteorological subdivision of the state Uttar Pradesh: West UP is 0.6 mm (99% deficient) and East UP is 3.0mm

(94% deficient). The extended range weather forecast provided for next two weeks for West UP is no rain for week-1 and scanty for week-2; scanty for both the weeks for East UP.

- Most of the sorghum crops are at seed setting stage and farmers are advised to provide light irrigation in the field.
- Top dress Urea in Toria crop if adequate soil moisture is available.
- Sowing of irrigated wheat can be started from first week of November and recommended varieties are: Raj-1555, DL-803-3, HI-8381, HI-8498, UP-2338, K-9107, HD-2967, DBW-17.

Haryana

Rainfall Situation

No rainfall was received during the period of 01 October to 01 November 2017 over Haryana which is 100% deficient. The extended range weather forecast provided for next two weeks also predicted no rainfall.

- Due to possibility of favourable temperature conditions, farmers are advised to sow chickpea with C-235, HC-5. Farmers are advised to treat the gram seed with Bioderma 4 gram and 1 gram Vitavex mix with 5 ml water for 1 kg seed to controlling of fungal disease and also Rhizobium seed treatment advised as per university recommendation.
- Farmers are advised to complete the sowing of mustard/raya, at the earliest with recommended varieties for irrigated areas viz., RH 30, RH 8812 (Laxmi), RH 0749.
- Keep the animals under shed and well ventilated place. Provide 50 grams iodized salt and 50 to 100 grams mineral mixture daily with animal feed/fodder to keep them healthy.

Assam

Rainfall Situation

Rainfall received during the period of 01 October to 01 November 2017 over Assam is 216.9 mm, which is 39% excess to the normal. The extended range weather forecast provided for next two weeks for Assam is scanty for week-1 and excess for week-2.

- For Sali rice at flowering/soft dough, it is recommended to spray Malathion 5% dust @ 20 kg/ha against rice gundhi bug.
- Farmers are advised to prepare land for sowing of rapeseed and mustard. Apply lime @ 65.5 kg/bigha, at least 15 days prior to sowing of seeds. The recommended varieties of rapeseed and mustard are M-27, TS-36, TS-38 etc.
- Farmers are advised to prepare the land and Collect the potato varieties like Kufri Chandramukhi, Kufri Jyoti, Kufri Megha, Kufri Badshah, Kufri Sindhuri etc.
- Farmers are advised to start seedbed preparation for raising seedlings of tomato. Drench the beds with 1% solution of Captaf or Formalin. Recommended varieties are Punjab Chhuhara, Arka Alok, Pusa Rubi, Sioux, Punjab Keshri, Arka Abhijit, BT-1 etc.

Himachal Pradesh

Rainfall Situation

Rainfall received during the period of 01 October to 01 November 2017 over Himachal Pradesh is 0.3mm, which is 99% deficient to the normal. The extended range weather forecast provided for next two weeks for Himachal Pradesh is scanty.

• The soil moisture is not sufficient for the sowing of *rabi* crops. The sowing of wheat and mustard crops can be taken up, where irrigation facilities are available.

Jammu and Kashmir

Rainfall Situation

Rainfall received during the period of 01 October to 01 November 2017 over Jammu and Kashmir is 0.3mm, which is 99% deficient to the normal. The extended range weather forecast provided for Jammu and Kashmir is scanty for both the weeks.

- Sowing of wheat (var. PBW-175, PBW-396, RSP-81(Jitto), WH-1080 and PBW-644 can be taken up, wherever irrigation facilities are available. Due to prevalence of dry weather, hoeing and weeding is recommended to conserve soil moisture for oil seed crops.
- In irrigated areas, farmers may go for hoeing in 15-20 days old crop to provide proper spacing. Sowing of mustard (var. Pusa Bold, RSPR-01, RSPR-03, Kranti) and Gobi sarson is in progress. Sowing of Pea (var., AP-1, Bonnevillea, Rachna and Arkel); Chickpea (var., K-468, Gourav); Lentil(var., L-4147, L-9/12, PL-406) can also be undertaken.

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