



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

Validity: 04 to 17 January 2019

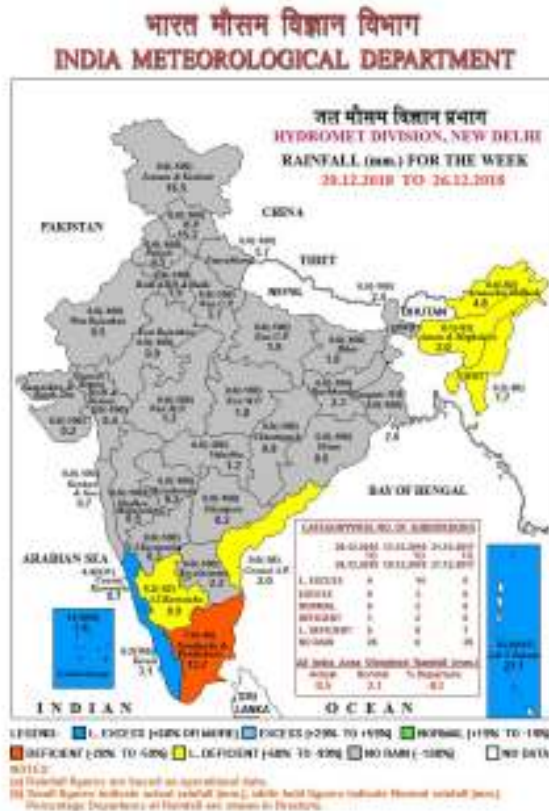
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&
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Realized Rainfall and Extended Range Forecast (Rainfall and Temperatures)

Realized Rainfall

(20th December 2018 to 2nd January 2019)



- Normal or above normal rainfall occurred in both the weeks in Coastal Karnataka, Kerala, Lakshadweep Andaman & Nicobar Islands.
- Below normal rainfall / no rain occurred over rest of the country.

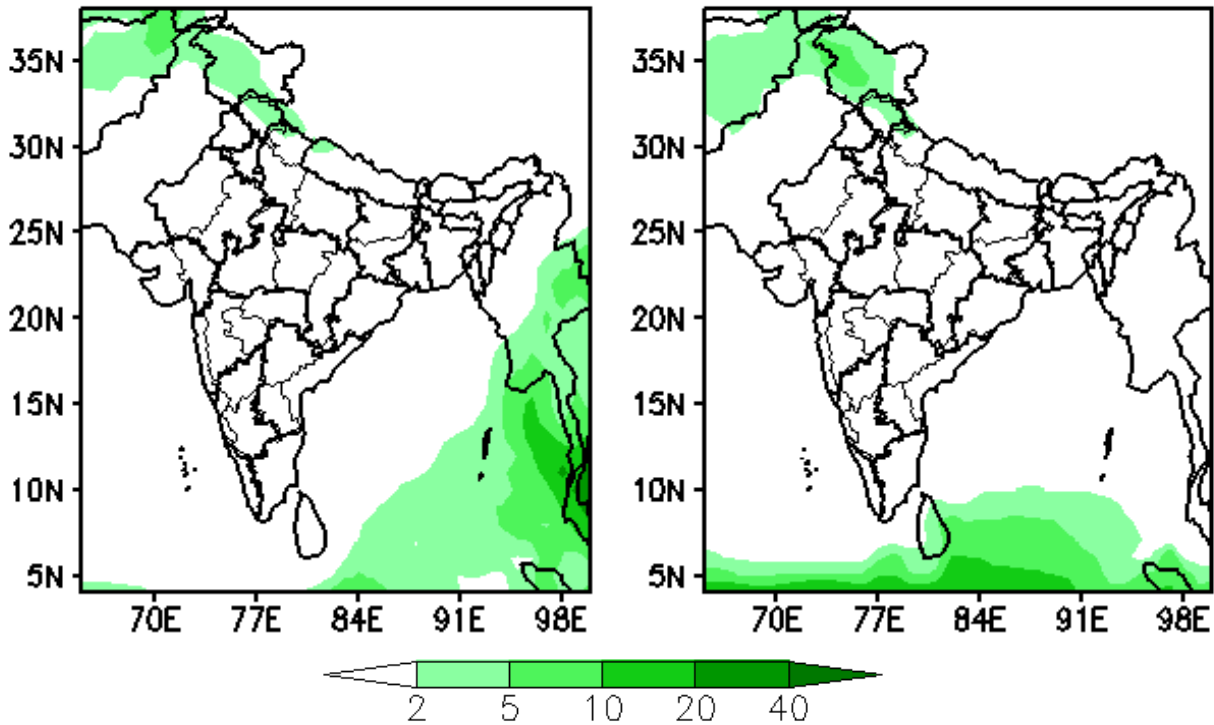
Extended Range Forecast System

Rainfall forecast maps for the next 2 weeks (IC – 02 January)
(4th to 17th January 2019)

Actual Rainfall (mm/day)

(Week1: 04Jan–10Jan)

(Week2: 11Jan–17Jan)

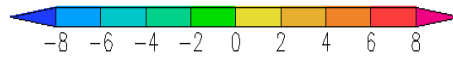
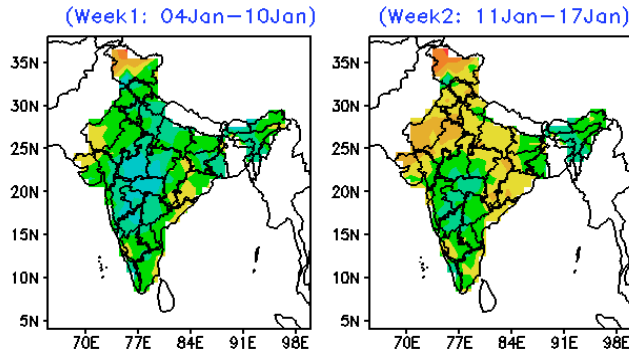


Extended Range Rainfall Forecast

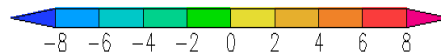
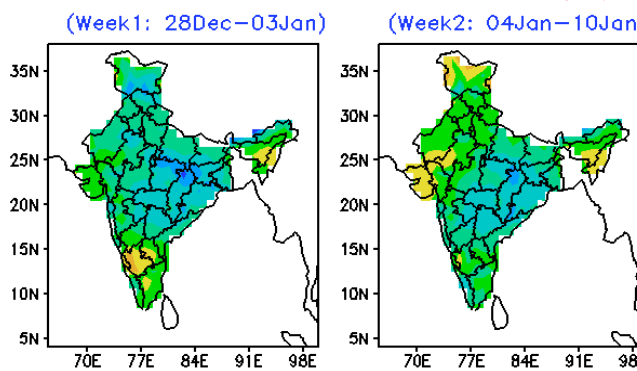
- Week 1 (04.01.2019 to 10.01.2019) and Week 2 (11.01.2019 to 17.01.2019): No significant rainfall, except over extreme north India and parts of south peninsula.

**Maximum and Minimum temperature anomaly ($^{\circ}\text{C}$) forecast
for next 2 weeks (IC – 02 January)
(4th to 17th January 2019)**

MME Bias Corrected Tmax Anomaly (Deg)



MME Bias Corrected Tmin Anomaly (Deg)



Maximum Temperature (Tmax)

- **Week 1 (04.01.2019 to 10.01.2019):** Mainly below normal Tmax over most of India.
- **Week 2 (11.01.2019 to 17.01.2019):** Mostly below normal Tmax over south peninsula and adjoining central India.

Minimum Temperature (Tmin)

- **Week 1 (04.01.2019 to 10.01.2019):** Mostly below normal Tmin will continue over India with eastern parts will have higher negative anomaly.
- **Week 2 (11.01.2019 to 17.01.2019):** Eastern parts of India (Odisha, Chhattisgarh and adjoining region) will be under the grip of cold wave/lower minimum temperature during week the week. However, Northwest parts of India Tmin will be normal to slightly above normal.

Strategic Agricultural Planning based on rainfall during next two weeks till 17th January 2019

Agromet Advisories

Kerala

Rainfall received during the period from 01 October to 31 December 2018 over Kerala is 463.0 mm, which is 4% deficit than normal.

- Destroy the affected leaves along with the Spodoptera in banana. If Spodoptera attack is severe, spray quinolphos 2ml per one litre of water or chlorantraniliprole 3 ml per 10 litre of water.
- White powdery spots are being seen on the leaves of the cucurbitaceous vegetables. Farmers are advised to apply 20 g of Trichoderma viride per one litre of water to control powdery mildew disease of vegetables.
- Spray Streptocycline (300ppm) to control black rot in cabbage.

Karnataka

Rainfall received during the period from 01 October to 31 December 2018 over different meteorological sub-divisions of Karnataka viz, North Interior Karnataka is 50.5 mm (65% deficit), South Interior Karnataka is 123.7 mm (41% deficit) and Coastal Karnataka is 182.5 mm (31% deficit).

South Interior Karnataka

- One protection irrigation to *rabi* crops is recommended due to lack of soil moisture.
- It is the right time to harvest the *kharif* crops like ragi, maize and redgram. If Ragi crops is already harvested, the straw may be collected and stacked.
- Farmers are advised to clear the weeds in Mango orchard, guava and sapota. Thereafter, put it under the basin as mulch.

Tamil Nadu

Rainfall received during the period of 01 October to 31 December 2018 over Tamil Nadu is 336.0 mm, which is 23% deficit as compared to the normal.

- Prevailing weather condition is favorable for leafhopper, thrips and stem weevil incidence in cotton. To control sucking pest, spray Imidacloprid 200 SL 100 ml/ha or Fipronil 5%SC 1500-2000 ml/ha.
- Favourable weather condition is prevailing for corn worm infestation in maize. To control corn worm, spray Carbaryl 25 kg/ha or Phosalone 25 kg/ha.
- Climatic condition is favourable for Thrip and Aphid infestation in chilli. To control, apply Carbofuran 3% @ 33 kg/ha or phorate 10 % @ 10 kg/ha.

Maharashtra

Rainfall received during 01 October to 31 December 2018 over different meteorological sub divisions of the state viz., Konkan: 65.5 m (56% deficit), Madhya Maharashtra: 38.7 mm (64% deficit), Vidarbha: 10.0mm (88% deficit) and Marathwada: 16.0 mm (84% deficit).

Marathwada

- Top dressing of 40 kg Nitrogen per hectare should be done with the help of Urea in late sown (In the month of December) wheat crop.
- To avoid infestation of pod borer in chickpea crop, spray Quinalphos 25 % @ 400 ml or Emamectin benzoate 5 % @ 80 g per acre.
- To control attack of aphids in *rabi* sorghum, take a spray of Dimethoate 30 EC@ 200 ml per acre.
- To control attack of aphids in cruciferous vegetables, take a spray of 1 liter 300 ppm NSKE or Dimethoate 30 % @ 260 ml per acre.
- In matured grapes, cracking may be observed due to low temperature during early morning. To prevent, create smoke cover over the field so that the surrounding temperature of orchard may increase.

Vidarbha

- For very late sown wheat (December 15-7 January), recommended variety is AKW-381. Seed treatment with Thiram @ 3.0 g / kg seed or Vitavax 75 WP@ 2.5 g / kg seed is advisable.
- In timely sown irrigated wheat crop, top dressing of nitrogenous fertilizer (@ 50 kg per hectare) 20-25 days after sowing (CRI stage) at the time of irrigation can be followed.
- With prevalence of continued dry weather, need based irrigation is advisable in *rabi* crops.
- Farm livestock should be protected from exposure to cold during night time and early morning.

Konkan

- There is possibility of incidence of tea mosquito bug and thrips on the inflorescence of cashewnut, if incidence is noticed, spray Profenphos 50% EC @10 ml per 10 litre of water.
- If incidence of bunchy top disease is noticed on banana, remove and destroy infected plant. Since the aphid act as vector for bunchy top disease, if incidence of aphid is notice in banana orchard spray 0.05 % dimethoate insecticide 3 times at 15 days interval.
- There is a forecast for decrease in minimum temperature. Farmers are advised to provide irrigation to vegetable crop and grafts, sapling of fruit crop nursery at evening hours.
- If incidence of wilt is noticed in watermelon, drenching of carbendazim @1 gm per litre is suggested.
- For control of weeds in cole crop, do weeding operation after 20-25 days of planting along with earthing up of soil to give support to plant.

Madhya Maharashtra

- To control aphids and alternaria on Safflower, spray dimethoate 15 ml + readymix fungicide (carbendazim + mancozeb) @ 20 gm/ 10 litre of water.
- To control infestation of pod borer in chick pea install Helilure traps @ 5 no./ ha If the incidence is more spray Chlorpyriphos/ Quinolphos @ 15-20 + 10 litre of water.
- To reduce the infestation of powdery mildew disease in the late pruned ber, farmers are advised to spray 80 WP wettable sulphur 20gram and karathane 5 ml per 10 litre of water in alteration at 10 – 12 days interval.

Andhra Pradesh

Amount of rainfall received over Coastal Andhra Pradesh region is 149.3 mm (54% deficit) and Rayalaseema is 83.8 mm (62% deficit) during 01 October to 31 December 2018.

- Army worm incidence is noticed in Jowar crop in Kurnool, Prakasam, Ananthapuramu and Kadapa districts. Farmers are advised to take up spraying of Emamectin Benzoate @ 0.5 gram/litre or Lamda cyahalothrin@1ml/ litre of water to control army worm.
- Pink boll worm incidence is observed in final pickings of cotton crop in Kurnool district. Farmers are advised to go for spraying of Quinalphos@ 2ml/litre or Chlorpyrifos @ 2.5 ml/ litre or Thiodicarb @1g/litre for control.
- Prevailing low temperatures may lead to spikelet sterility in rice crop which is at flowering stage. Farmers are advised to remove the standing water and re-irrigate the crop and spray 2% KNO₃ to overcome the situation.

Uttar Pradesh

Amount of rainfall received over East Uttar Pradesh region is 0.4 mm (99% deficit) and West Uttar Pradesh is 7.5 mm (86% deficit) during 01 October to 31 December 2018.

- Due to dry weather during this week, farmers are advised to irrigate their timely sown *Rabi* crops as per need.
- Irrigation can be taken up after 30-35 days of sowing in barley crop. Top dress 60 kg/ha Urea after first irrigation at optimum moisture.
- Farmers are advised to give light irrigation at flowering and pod formation stages in mustard crop.
- Need based irrigation should be taken up for protection of fog and frost condition in potato crop and spray mancozeb 2 g / litre water to counter the effect of blight disease at 10-15 days intervals.
- Light to scattered clouds is expected to appear during this week, therefore aphids can affect mustard crop. To avoid the infestation, spray Chlorpyrifos 20% EC @ 1.0 litre/ha or monochrotophos 36 % S.L. @ 500 ml/ha with 500-600 litre of water solution.

West Bengal

Rainfall received over Gangetic West Bengal during 01 October to 31 December 2018 is 96.6 mm, which is 40% deficit.

- Boro-rice: Farmers are advised to cover the nursery bed with transparent polythene sheet. Keep stagnant water in the evening and drain out the same during early morning to keep the nursery bed warm.
- Potato: Blight infestation may appear due the prevailing weather condition. Timely planted crop should be irrigated after earthing up followed by 1st top dressing of nitrogen fertilizer.

Jharkhand

Rainfall received over Jharkhand during 01 October to 31 December 2018 is 55.3 mm, which is 40% deficit.

- Intercultural operations are advised in pulse and oilseed crops.
- Spray insecticide Dematon (Rogor) @ 1 ml. per litre of water in different crops or vegetables against aphids.

- Broadcast urea @ 22 kg per acre after irrigation in 40 - 45 (timely sown) and 22 - 25 (late sown) days old wheat crops. However, before irrigation and urea application.
- Arhar crops are at pod formation and grain filling stage. At this stage crop is vulnerable for attack of pod borer insects. Spray Indoxacarb @ 0.5 ml per litre of water to control them.
- For cultivation of early summer vegetables, sow the seeds of cucurbitaceous plants in polythene (filled with soil and FYM) and keep it at warmer place. Before seeding, seeds may be soaked in water for 24 hours.

Odisha

Rainfall received over Odisha during 01 October to 31 December 2018 is 177.6 mm, which is 23% excess.

- Cold and cloudy weather favours the infestation of powdery mildew and aphids in greengram, blackgram, pea etc. To control powdery mildew, spray 1 kg Sulfex WP in 200 litre per acre and to control aphids, Spray 50 ml Imidacloprid.
- Farmers are advised to complete transplanting of onion by this week. Uproot the seedlings when attain 12-15 cm height.
- Leaf eating caterpillar infestation has been found in groundnut. Apply 10 Kg of 2 % Methyl Parathion dust around the bund to control.

Rajasthan

Amount of rainfall received over East Rajasthan region is 2.2 mm (92% deficit) and West Rajasthan is 0.5 mm (95% deficit) during 01 October to 31 December 2018.

- Farmers are advised to give first irrigation in wheat at 21-25 days on CRI stage and second irrigation at tillering stage with ¼ dose of nitrogen (65kg urea/ha).
- Apply irrigation in mustard where the crop is at grain development stage.
- Regular monitoring for insect-pest attack in mustard is recommended. For aphid control, spray the solution of Imidacloprid 500 ml in 1000 litre of water.
- For the control of broad leaf weeds, spray of 2,4-D ester salt @ 500 ml/ha in wheat where the crop is at 30-35 days. To control of wild oat and Phalaris minor, spray Isoproturon @ 0.75 kg a.i./ha or Metaxuron @ 1.25 kg a.i./ha in 30 to 35 days wheat crop.

Assam

Rainfall received over Assam is 88.4 mm (55% deficit) during 01 October to 31 December 2018.

- Attack of red ant and cut worm may be observed in the potato field. To control this pest, apply phorate 10% granules @ 2kg/bigha or malathion 5% dust @ 5kg/bigha in the soil .
- Due to low night temperature and thick fog, farmers may observe aphid attack in rapeseed and mustard crop. To control this pest, spray Dimethoate 30EC or Chloropyriphos 20EC 0.5lit/ha with a spray volume of 500-700 litre of water/ha.
- Farmers are suggested to go for manual weeding in vegetable crops like cabbage, broccoli, cauliflower etc. Normally two such weeding is necessary for healthy crop growth, first at 20 days and second at 40 days after transplanting.

- Protect poultry birds from cold by using gunny bags or plastic sheets around the poultry sheds during night.

Punjab

Rainfall received over Punjab is 9.6 mm rainfall (77% deficit) during 01 October to 31 December 2018.

- If sufficient rain does not occur during coming days, then apply second irrigation to wheat sown during November and first irrigation to wheat sown during December. Apply second dose of nitrogen with first irrigation to late sown wheat.
- As rain is expected in coming days, farmers are advised to wait before applying irrigation to mustard crop.
- If symptoms of late blight are observed in potato field, then protect the crop by spraying Indofil M-45/Mass M-45/Markzeb/Antracole/Kavach @ 500-700 gram.
- Farmers are advised to protect the young fruit plants from low temperature.

Uttarakhand

Rainfall received over Uttarakhand is 25.1 mm rainfall (72% deficit) during 01 October to 31 December 2018.

- In view of light rainfall and hailstorm on 4-5 January, farmers are advised to harvest mature crops like leafy vegetable, citrus/malta fruits.
- Mulching should be done on Cole crops to conserve soil moisture.
- Protect young calves from cold by covering gunny bags during night and give some sunbath during day time.

Himachal Pradesh

Himachal Pradesh has received 56.5 mm of rainfall during 01 October to 31 December 2018, which is 48% deficit.

- If rainfall does not occur as per forecast, farmers are advised to go for light irrigation at evening time to protect the crops from probable frost.
- Farmers are advised to add mulch material in space between two rows of vegetables crops for conservation of soil moisture and maintaining the soil temperature.
- 30x10 cm spacing is advised during planting of onion bulbs.
- Farmers are advised to start earthing-up in potato if crop has attained a height of 15-22 cm.
- Apply manures and fertilizers in mango. Wrapping of plastic sheets around mango trunk should be done for preventing climbing of young mealy bugs.

Jammu

Rainfall received during 01 October to 31 December 2018 over Jammu is 128.6 mm, which is 2% deficit.

- Farmers may go for sowing of very late sown wheat varieties viz PBW-590, WH-1021, Raj-3077 and Raj-3765 with 50 % enhanced seed rate under irrigated condition.
- Weather is favourable for the attack of aphids. If 50-60 aphids are observed per plant, spray Chlorpyrifos 20EC @ 0.05% or Monochrotophos 36 WSC @ 0.04%.
- Due to congenial weather for collar rot and root rot in gram, rogue out affected plants and drench the affected patches of the field with thiram or captan @ 2g/litres of water.

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