



National Agromet Advisory Service Bulletin

based on

Extended Range Weather Forecast (ERFS)

Validity: 18 - 31 December 2020

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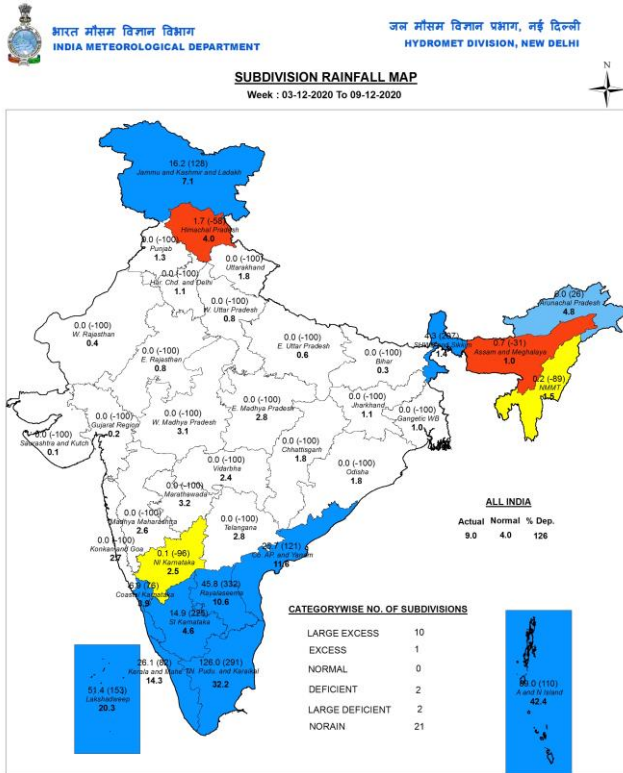
**AICRP on Agro-Meteorology (AICRPAM),
Central Research Institute for Dryland Agriculture (CRIDA),
Indian Council of Agricultural Research (ICAR)**

&

**India Meteorological Department (IMD),
Earth System Science Organization**

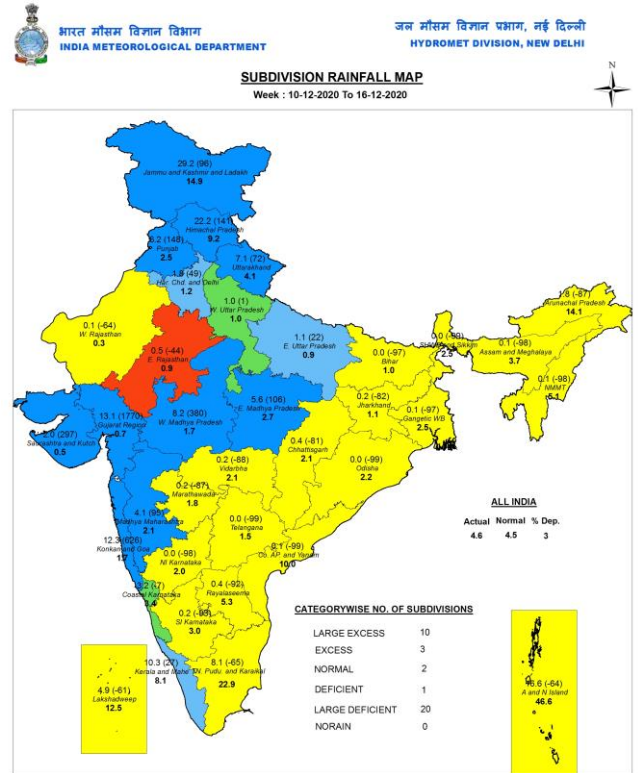
Realized Rainfall and Extended Range Forecast (Rainfall and Temperatures)

Realized Rainfall (3rd to 16th December, 2020)



Legend
Large Excess [60% or more] Excess [20% to 59%] Normal [-19% to 19%] Deficient [-49% to -20%] Large Deficient [-89% to -40%] No Rain [-100%] No Data

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



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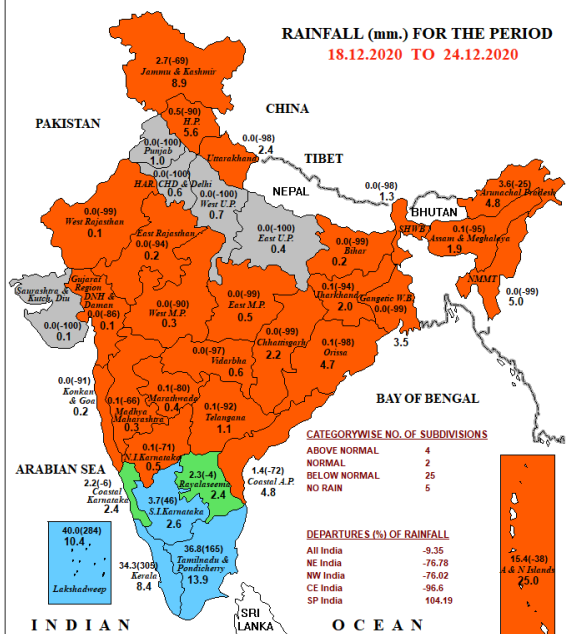
- Normal or above normal rainfall occurred in both the weeks in Jammu & Kashmir (UT), Ladakh (UT), Coastal Karnataka, Kerala & Mahe.
- Normal or above normal rainfall occurred in either of the two weeks in Himachal Pradesh, Punjab, Haryana Chandigarh & Delhi, Uttarakhand, Uttar Pradesh, Madhya Pradesh, Gujarat State, Konkan & Goa, Madhya Maharashtra, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Andhra Pradesh State & Yanam, Tamil Nadu, Puducherry & Karaikal, Andaman & Nicobar Islands and Lakshadweep.
- Below Normal rainfall / no rain occurred in both the weeks over rest of the country.

Extended Range Forecast System

Rainfall forecast maps for the next 2 weeks (IC – 16 Dec.) (18th to 31st December, 2020)

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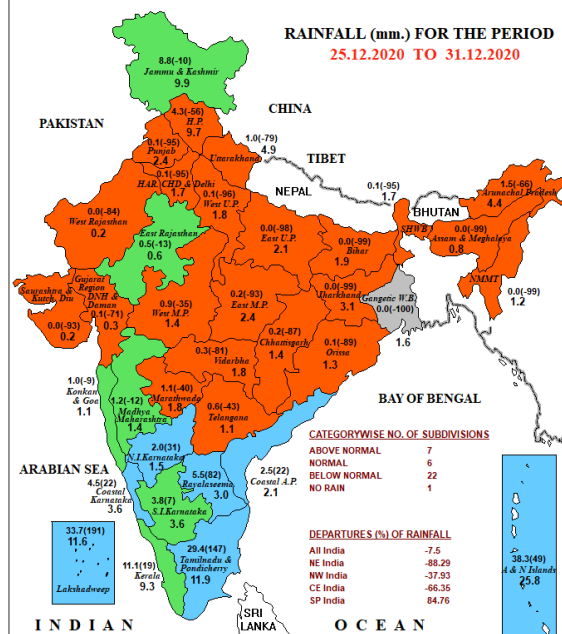
Rainfall Forecast Map - Normal RF Based Categories



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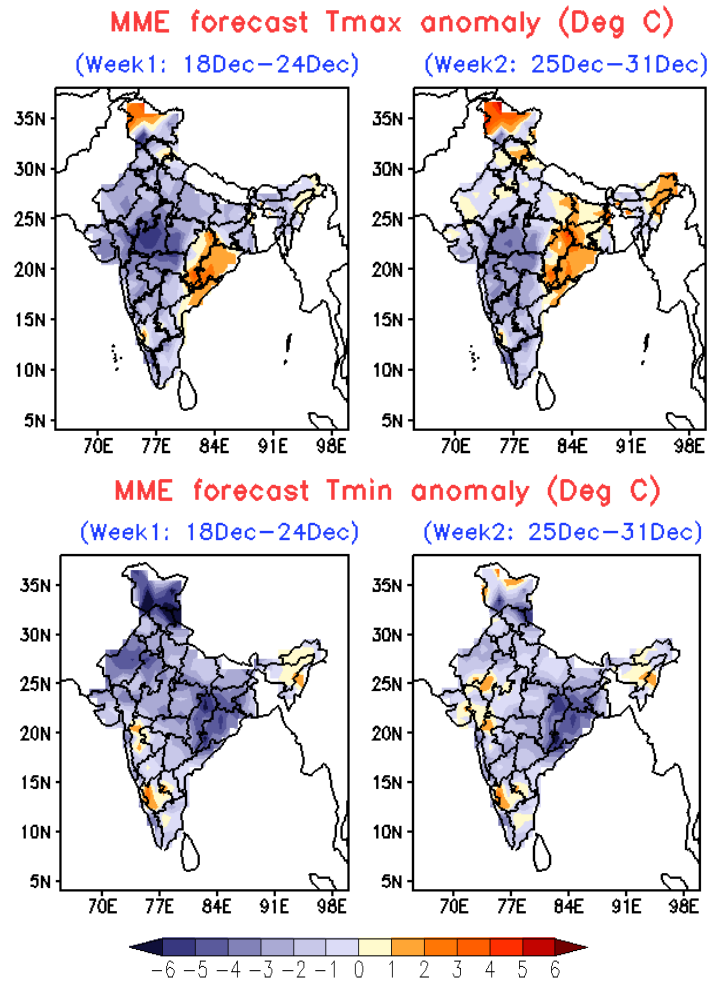
Rainfall Forecast Map - Normal RF Based Categories



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 Percentage Departures of Rainfall are shown in Brackets.

- **Week 1 (18.12.2020 to 24.12.2020):** Rainfall over south Peninsula and adjoining southern Bay and Arabian Sea.
- **Week 2 (25.12.2020 to 31.12.2020):** Rainfall over south Peninsula and adjoining southern Bay and Arabian Sea. Slight influence of Western Disturbance over extreme north India and northern India during the week.

**Maximum and Minimum temperature anomaly ($^{\circ}\text{C}$) forecast
for next 2 weeks (IC – 16 Dec.)
(18th to 31st December, 2020)**



Maximum Temperature (Tmax)

- **Week 1 (18.12.2020 to 24.12.2020):** Cold wave and cold day conditions (below normal Tmax) over northwest/west India in the week.

Minimum Temperature (Tmin)

- **Week 2 (25.12.2020 to 31.12.2020):** Cold wave to propagate to eastern parts (Odisha & Chhattisgarh during the week).

Strategic Agricultural Planning based on rainfall during next two weeks till 31 December 2020

Agro-met Advisories

Kerala

Amount of rainfall received over Kerala is 359.2 mm (-26% deficit) during 01 October 2020 - 17 December 2020. The extended range weather forecast for next two weeks (18 - 24 December and 25 - 31 December 2020) is above normal for week-1 and normal for week-2.

- Under prevailing weather condition, there is a chance of leaf folder attack in *mundakan* paddy. It is advised to use Trichogramma cards @ 2CC per one acre. If attack is severe, spray Chlorantraniliprole @ 3 ml per 10 litres of water.
- For the management of nematode attack in banana, apply Carbosulfan 6G @ 20 g/pit at the time of planting.

Tamil Nadu

Amount of rainfall received over Tamil Nadu is 455.2 mm (8% excess) during 01 October 2020 - 17 December 2020. The extended range weather forecast for next two weeks (18 - 24 December and 25 - 31 December 2020) is above normal for week-1 and week-2.

- Under the prevailing weather conditions, farmers are advised to monitor borer incidence in sorghum. If incidence is noticed, spray Methyl demeton 25 EC 500 ml/ha or Dimethoate 30 EC 500 ml/ha.
- Present weather condition is favorable for powdery mildew incidence in pulses. It is advised to spray Neem Seed Kernel Extract (NSKE) 5% or Neem oil 3% twice at 10 days intervals from initial disease appearance or Spray Carbendazim 1g/litre or Wettable Sulphur 2.5 g/litre.

Maharashtra

Rainfall received over Madhya Maharashtra is 170.0 mm (66% large excess), Marathwada is 106.7 mm (9% excess), Vidharbha is 52.0 mm (-34% deficit) and Konkan region 254.2 mm (83% large excess) during 01 October 2020 - 17 December 2020. The extended range weather forecast for next two weeks (18 - 24 December and 25 - 31 December 2020) over Madhya Maharashtra, Vidharbha, Konkan and Marathawada is below normal for week-1 and below normal over Vidharbha and Marathwada and normal over Konkan and Madhya Maharashtra for week-2.

Marathwada

- For the management of sigatoka disease in banana orchard, it is advised to spray Propiconazole @ 10 ml + sticker per 10 litres of water.

Vidharbha

- Under prevailing weather condition, transplanting of 4-6 week old seedlings of tomato, brinjal, cabbage and cauliflower and seed sowing radish carrot, leafy vegetables is advised.
- For the management of pod borer incidence in pigeon pea, it is advised to spray 5% NKSE or

Azadirachtin 300 ppm @ 50 ml per 10 litres of water or Azadirachtin 1500 ppm @ 25 ml or Quinolphos 25% EC @ 20 ml or Thiodicarb 75% WP @ 20 g per 10 litres of water.

Madhya Maharashtra

- Due to cloudy weather condition, there is a chance of pod borer in chickpea. It is advised to spray 5% Neem ark and use T-shaped bird perches @ 50 per ha in the field.
- For the management of aphids in safflower crop, it is advised to spray Metarhizium anasopli 50 g or Dimethoate 30% concentration 10 ml per 10 litres of water.

Konkan

- Due to the chances of cloudy and humid weather condition, there is possibility of incidence of downy mildew disease in cucurbitaceous vegetables. If incidence is noticed, remove and destroy infected leaves and spray Mancozeb 75% WP @ 2.5 g or Coper oxychloride 50% WP @ 2 g per litre of water at an interval of 10 to 15 days.

Hisar

Amount of rainfall received over Hisar is 8.3 mm (-50% deficit) during 01 October 2020 - 17 December 2020. The extended range rainfall forecast provided for next two weeks (18 - 24 December and 25 - 31 December 2020) over Hisar is no rainfall for week-1 and below normal for week-2.

- Due to anticipated weather condition, farmers are advised to apply need-based irrigation and sowing of late sown wheat varieties.
- There is a higher chance of decrease in night-time temperature. It is advised to keep the animals under shed and clean around to control fly and mosquitos in cattle shade.

Karnataka

Rainfall received during 01 October 2020 - 17 December 2020 over South Interior Karnataka is 202.2 mm (normal rainfall) and North Interior Karnataka is 179.8 mm (32% excess). The extended range weather forecast for next two weeks (18 - 24 December and 25 - 31 December 2020) over South Interior Karnataka is above normal and below normal over North Interior Karnataka for week-1 and normal over South Interior Karnataka and above normal over North Interior Karnataka for week-2.

South Interior Karnataka

- To protect the pulse grain from storage pest, it is advised to apply oil of castor/linseed/neem @ 3-5 ml per kg of grains.
- Farmers are advised to manage the humidity in the silkworm rearing house by providing good cross-ventilation and dust dry slaked lime powder when silkworms settle for moult.

North Interior Karnataka

- Under prevailing weather conditions, harvesting and sun drying of maize and groundnut crop is

advised.

- It is advised to vaccinate the livestock against Foot and Mouth disease (FMD vaccination), Black Quarter disease (BC vaccination) and Haemorrhagic Septicaemia.

Uttar Pradesh

Rainfall received during 01 October 2020 - 17 December 2020 over East Uttar Pradesh 9.1 mm (-79% large deficit) and West Uttar Pradesh is 5.4 mm (-81% large deficit). The extended range weather forecast for next two weeks (18 - 24 December and 25 - 31 December 2020) over East Uttar Pradesh and West Uttar Pradesh is no rainfall for week-1 and below normal over East Uttar Pradesh and West Uttar Pradesh for week-2.

Western Uttar Pradesh

- Farmers are advised for sowing of late sown wheat varieties in irrigated condition. Recommended varieties are HUW-234, K-7903, UP-2338, K-9162, K-9533, HD-2643, HP-1744, NW-1014, K-8020, UP-2425, NW-2036, DBW-14, K-9423, PBW-524, NW-1076 and HUW-510.
- Due to no rainfall conditions, farmers are advised to irrigate the timely sown wheat after 20-25 days of sowing.

Eastern Uttar Pradesh

- Intercultural operation is advised to check evaporation losses.
- Under the prevailing weather conditions, sowing of chickpea, mustard, potato, pea and other *rabi* vegetables is advised.

Jammu

Amount of rainfall received over Jammu is 95.2 mm (1% excess) during 01 October 2020 - 17 December 2020. The extended range weather forecast provided for next two weeks (18 - 24 December and 25 - 31 December 2020) on rainfall over Jammu is below normal for week-1 and normal for week-2.

- Under prevailing weather conditions, farmers may go for sowing of late sown wheat with varieties WH-1021, PBW-590, PBW-373, Raj-3077, Raj-3765, and DBW-16.
- For the management of cut worm in chickpea crop, it is advised to apply 2 litres of Chlorpyrifos 20 EC mixed with 25 kg of dry sand.

Chhattisgarh

Amount of rainfall received over Chhattisgarh is 92.6 mm (24% excess) during 01 October 2020 - 17 December 2020. The extended range weather forecast provided for next two weeks (18 - 24 December and 25 - 31 December 2020) on rainfall over Chhattisgarh is below normal for week-1 and week-2.

- Due to cloudy weather condition, there is a chance of aphids in oilseeds, pulses and vegetable crops. For management, it is advised to spray neem-based pesticides when initial outbreak observed.
- Sowing of sunflower is specially advised with recommended varieties TNAU, SUF-7, BSH-1, KBSH-1, DRSH-1 Jwalamukhi, Surya.

West Bengal

Amount of rainfall received over West Bengal is 80.6 mm (-47% deficit) during 01 October 2020 - 17 December 2020. The extended range weather forecast provided for next two weeks (18 - 24 December and 25 - 31 December 2020) on rainfall over West Bengal is below normal for week-1 and no rainfall for week-2.

- Under prevailing weather condition, there is a chance of attack of black-rot of crucifers in the cabbage and cauliflower. To control, it is advised to spray 1g Streptocycline in 10 litres of water.
- Nursery bed preparation for the sowing of boro rice is advised with recommended varieties Supriya, Jamini, Bhupen, and IET-2233.

Odisha

Amount of rainfall received over Odisha is 166.6 mm (28% excess) during 01 October 2020 - 17 December 2020. The extended range weather forecast provided for next two weeks (18 - 24 December and 25 - 31 December 2020) on rainfall over Odisha is below normal for week-1 and week-2.

- Under prevailing weather condition, there is a chance of aphid infestation in early sown mustard crop. To manage, it is advised to keep yellow sticky traps @ 8 traps per acre or spray Thiamethoxam 25% WG @ 40 g/acre or Acetamiprid 20% SP @ 50 g/acre in 200 litres of water.
- To manage pod borer in pigeon pea crop, it is advised to spray Chlorpyrifos 50% + Cypermethrin 5% EC @ 400 ml/acre or Profenophos 50% EC @ 400 ml/acre. To manage the blister beetles, manually collect the insects and put them in kerosene to kill or put them in a pit and cover the soil.

Assam

Amount of rainfall received over Assam is 214.8 mm (12% excess) during 01 October 2020 - 17 December 2020. The extended range weather forecast provided for next two weeks (18 - 24 December and 25 - 31 December 2020) on rainfall over Assam is below normal for week-1 and week-2.

- Due to favorable weather, there is a chance of pod borer in green gram and black gram crop. Farmers are advised to spray Emamectin Benzoate 5% SG @ 5 g/10 litres water to control the pest infestation.

- Due to decrease in night temperature, there is a chance of aphid attack in rapeseed & mustard crop. To control, it is advised to spray Emamectin Benzoate 5% SG @ 5 g per 10 litres of water.

Rajasthan

Amount of rainfall received over Rajasthan is 9.2 mm (-62% large deficit) during 01 October 2020 - 17 December 2020. The extended range weather forecast provided for next two weeks (18 - 24 December and 25 - 31 December 2020) on rainfall over Rajasthan is below normal for week-1 and normal for week-2.

- Under prevailing weather condition, there is a chance of powdery mildew disease in mustard crop. To control, it is advised to spray Ridomil M.Z.-2 dose 2g/litre.
- For the management of root rot disease in gram, spraying of Carbendazim 50 wp @ 2g / litre of water is advised.

Himachal Pradesh

Amount of rainfall received over Himachal Pradesh is 67.5 mm (5% normal) during 01 October 2020 - 17 December 2020. The extended range weather forecast provided for next two weeks (18 - 24 December and 25 - 31 December 2020) on rainfall over Himachal Pradesh is below normal for week-1 and week-2.

- Due to chances of frost occurrence, farmers are advised to protect the crop by applying light irrigation and mulching in crops during evening hours.
- Prevailing weather condition is optimum time for raising the nursery of winter flowers in polyhouses.
- Due to decrease in temperature, farmers are advised to protect the newly born calves and milch animals from cold and provide dry bedding to animals.

Gujarat

Amount of rainfall received over Gujarat is 23.7 mm (-19% deficit) during 01 October 2020 - 17 December 2020. The extended range weather forecast provided for next two weeks (18 - 24 December and 25 - 31 December 2020) on rainfall over Gujarat is below normal for week-1 and week-2.

- For the management of whitefly in brinjal, it is advised spray 500 ml 5% neem seed extract or neem oil @ 50 ml or Difenthiuron 50 WP @ 16 g in 10 liters of water.
- Under prevailing weather condition, sowing of cumin is advised. Recommended varieties are Gujarat cumin 1, 2, 3, 4.

Punjab

Amount of rainfall received over Punjab is 18.5 mm (-1% deficit) during 01 October 2020 - 17 December 2020. The extended range weather forecast provided for next two weeks (18 - 24 December and 25 - 31 December 2020) on rainfall over Punjab is no rainfall for week-1 and below normal for

week-2.

- For the management of late blight disease in potato, it is advised to spray Indofil M-45/Mass M-45/Markzeb/Antracol/Kavach @ 500-700 g or Copper Oxychloride 50 WP/Mark copper @ 750-1000 g/acre in 250-350 litres of water at 7 days interval.

Jharkhand

Amount of rainfall received over Jharkhand is 67.5 mm (-22% deficit) during 01 October 2020 - 17 December 2020. The extended range weather forecast provided for next two weeks (18 - 24 December and 25 - 31 December 2020) on rainfall over Jharkhand is below normal for week-1 and week-2.

- Present weather condition is congenial for the attack of powdery mildew disease in cucurbitaceous plant. To control, it is advised to spray Kairathen @ 1.5 ml per litre of water.
- For the management of fruit borer attack in pigeon pea crop, it is advised to spray Endoxacarb @ 0.5 ml per liter of water or Spinosed @ 1 ml per liter of water or Nuvan/Dichlorovos @ 2 ml per litre of water.

Andhra Pradesh

Amount of rainfall received over Andhra Pradesh is 343.1 mm (57% excess) during 01 October 2020 - 17 December 2020. The extended range weather forecast provided for next two weeks (18 - 24 December and 25 - 31 December 2020) on rainfall over Andhra Pradesh is normal for week-1 and above normal for week-2.

- Present weather condition is congenial for pink boll worm in cotton. To control, it is advised to spray Neem oil @ 5 ml/litre or Profenofos @ 2 ml/litre or Acephate @ 1.5 g/litre at ETL @ 8 moths/trap.
- Prevailing weather condition is also congenial for helioverpa incidence in red gram. To control, it is advised to spray Quinolphos @ 2 ml/litre or Thiodicarb @ 1g/litre of water.

Madhya Pradesh

Amount of rainfall received over Madhya Pradesh is 37.9 mm (-29% deficit) during 01 October 2020 - 17 December 2020. The extended range weather forecast provided for next two weeks (18 - 24 December and 25 - 31 December 2020) on rainfall over Madhya Pradesh is below normal for week-1 and week-2.

- Farmers are advised to prepare the fields for sowing of wheat crop under irrigated conditions.
- Due to anticipated light rainfall situation and lowering of air temperature, it is advised to keep rice surface litter on the floor of poultry shed to protect the birds from low temperature and humidity.

Disclaimer:

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