



National Agromet Advisory Service Bulletin

based on

Extended Range Weather Forecast (ERFS)

Validity: 31 December 2021 - 13 January 2022

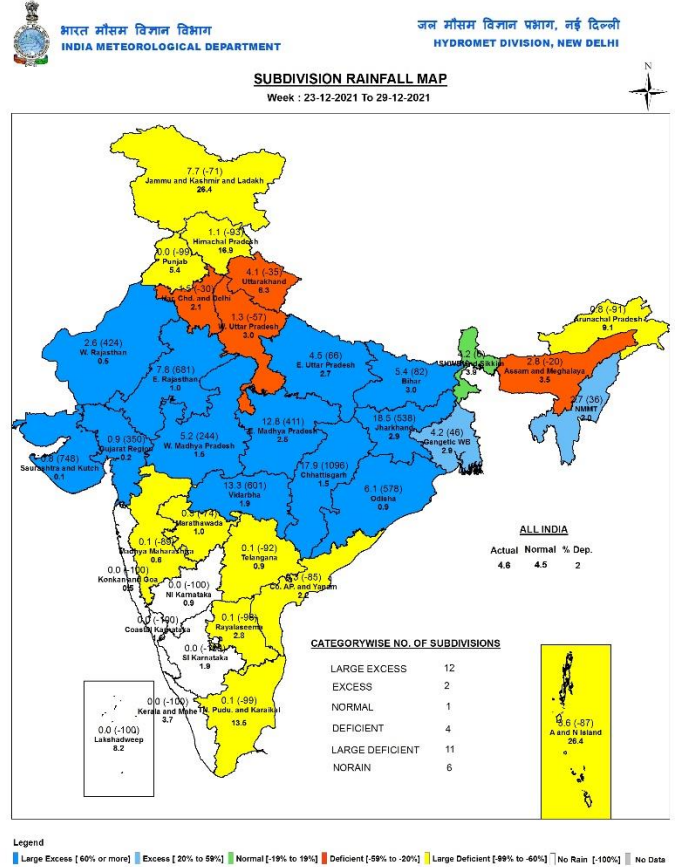
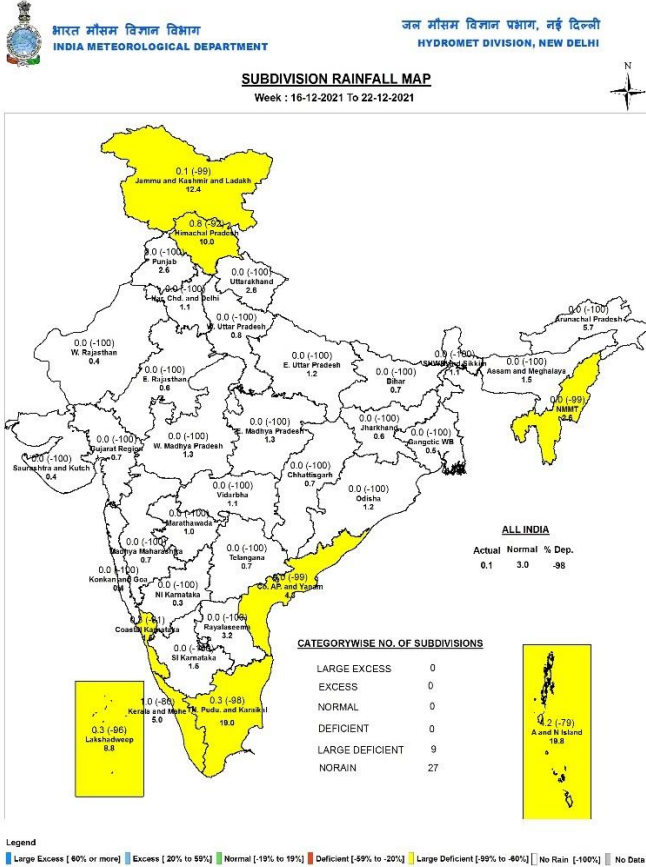
Date of issue: 31 December 2021

Issued by

**AICRP on Agro-Meteorology (AICRPAM),
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&
India Meteorological Department (IMD),
Earth System Science Organization**

Realized Rainfall and Extended Range Forecast (Rainfall and Temperature)

Realized Rainfall (16th to 29th December, 2021)



- Normal or above normal rainfall occurred in either of the two weeks in West Bengal & Sikkim, Nagaland Manipur Mizoram & Tripura (NMMT), Odisha, Jharkhand, Bihar, East Uttar Pradesh, Rajasthan, Madhya Pradesh, Gujarat, Vidarbha and Chhattisgarh.
- Below Normal rainfall/no rain occurred in both the weeks over rest of the States & UTs.

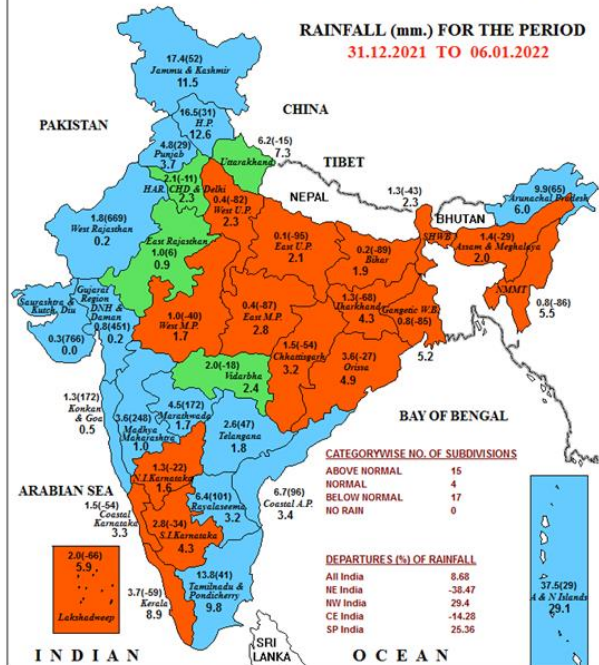
Extended Range Forecast System

Rainfall forecast maps for the next 2 weeks (IC – 29 December)

(31st December, 2021 to 13th January, 2022)

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Rainfall Forecast Map - Normal RF Based Categories

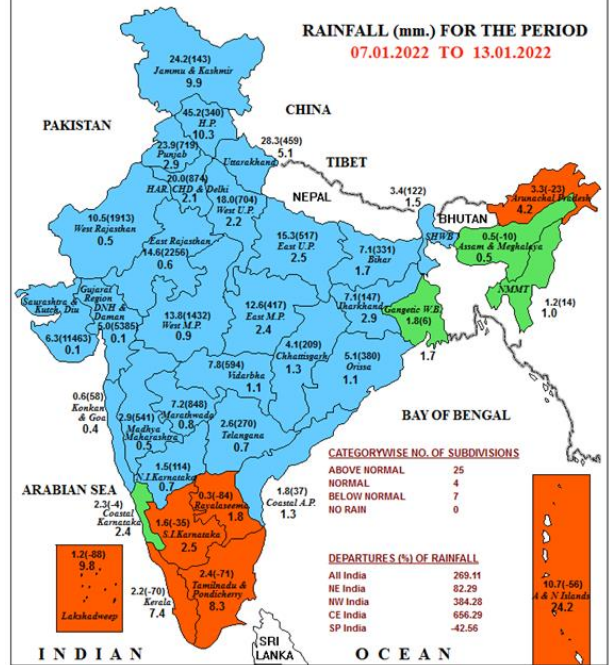


LEGEND: ■ ABOVE NORMAL (+20% OR MORE) ■ NORMAL (+19% TO -19%)
■ BELOW NORMAL (-20% TO -99%) ■ NO RAIN (-100%) ■ NO DATA

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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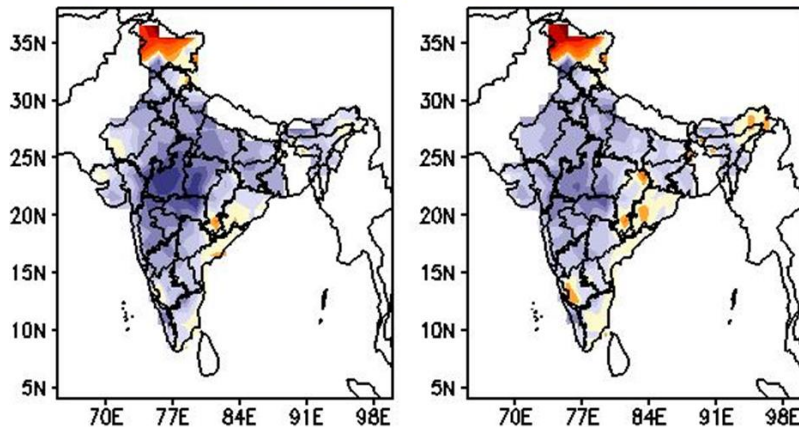
- **Week 1 (31.12.2021 to 06.01.2022):** Western Disturbances associated rainfall is expected over extreme north India covering Jammu & Kashmir and Himachal Pradesh. Some parts of the southeast coastal region are also likely to get rainfall.
- **Week 2 (07.01.2022 to 13.01.2022):** Rainfall associated with Western Disturbance is expected over north India covering Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Haryana, Punjab, East Uttar Pradesh and north Madhya Pradesh etc. Some parts of the southeast coastal region are also likely to get rainfall.

**Maximum and Minimum temperature anomaly ($^{\circ}\text{C}$) forecast
for next 2 weeks (IC – 29 December, 2021)
(31st December, 2021 to 13th January, 2022)**

MME forecast Tmax anomaly (Deg C)

(Week1: 31Dec-06Jan)

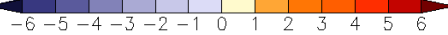
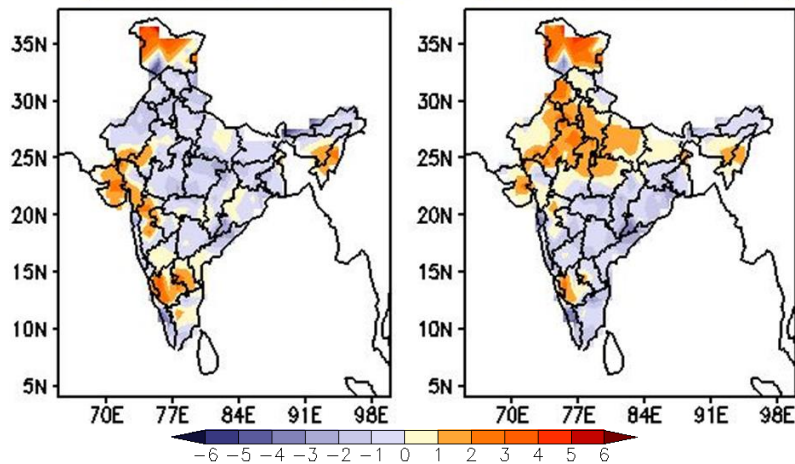
(Week2: 07Jan-13Jan)



MME forecast Tmin anomaly (Deg C)

(Week1: 31Dec-06Jan)

(Week2: 07Jan-13Jan)



Maximum Temperature (Tmax)

- **Week 1 (31.12.2021 to 06.01.2022) and Week 2 (07.01.2022 to 13.01.2022):** Mostly below normal Tmax over most parts of India in week 1 except some isolated regions of extreme north India, eastern coastal states and isolated regions over northeast India in week 2.

Minimum Temperature (Tmin)

- **Week 1 (31.12.2021 to 06.01.2022) and Week 2 (07.01.2022 to 13.01.2022):** Slightly below normal Tmin over parts of north India in week 1. Rise in minimum temperature over northwest India with most parts of the country will have above normal Tmin in week 2.

Strategic Agricultural Planning based on rainfall during next two weeks till 13 January 2022

Agro-met Advisories

Kerala

Amount of rainfall received over Kerala is 1027 mm (109% large excess) during 01 October - 31 December 2021. The extended range weather forecast (rainfall) for next two weeks (31 December 2021 - 06 January 2022 and 07 - 13 January 2022) is below normal for week-1 and week-2.

- Due to increase in atmospheric temperature, there is a chance of sucking pest infestation in vegetables. To control, it is advised to spray neem oil emulsion 2%, once in a week or spray *Lecanicillium lecanii* @ 20 g per litre of water.
- Current weather conditions may favour the rice bug infestation in paddy. To control, it is advised to spray fish jaggery extract @ 20 ml per litre of water or spray chitin-based *Pseudomonas fluorescens* @ 20 g in one litre of water. If the attack is severe then spray Azadirachtin @ 10 ml or Malathion @ 2 ml per litre of water.

Tamil Nadu

Amount of rainfall received over Tamil Nadu is 714 mm (59% large excess) during 01 October - 31 December 2021. The extended range weather forecast (rainfall) for next two weeks (31 December 2021 - 06 January 2022 and 07 - 13 January 2022) is above normal for week-1 and below normal for week-2.

- Current weather condition is favorable for shoot weevil infestation in cotton. To prevent, soil application of Carbofuran 3G @ 30 kg is advised 20 days after sowing and earthing up.
- Prevailing weather conditions are congenial for shoot fly incidence in sorghum. Farmers are advised to spray Methyl demeton 25 EC 500 ml/ha or Dimethoate 30 EC 500 ml/ha.

Maharashtra

Rainfall received over Madhya Maharashtra is 181 mm (76% large excess); Marathwada is 120 mm (20% excess); Vidarbha is 78 mm (-4% deficit) and Konkan region is 266 mm (90% large excess) during 01 October - 31 December 2021. The extended range weather forecast (rainfall) for next two weeks (31 December 2021 - 06 January 2022 and 07 - 13 January 2022) over Konkan, Marathwada and Madhya Maharashtra is above normal and normal over Vidarbha for week-1; During week-2, above normal rainfall is expected over Konkan, Madhya Maharashtra, Marathwada and Vidarbha regions.

Vidarbha

- Application of organic mulches in fruit crops tree basins is advised for thermal insulation to reduce cooling of soil surface during cold weather period.
- Due to the prevalence of cold weather, it is advised to keep the animals under the closed shelter and take special care of young cattle to protect from cold, and cover the shelter floor with straw litter which provides thermal mulch.

Madhya Maharashtra

- For the management of wilt and root rot in chickpea, drenching of Trichoderma @ 50 g per 10 litres of water is recommended.
- To avoid fruit drop in mango, application of Imidacloprid @ 1 ml per litre of water is recommended.

Marathwada

- For the management of stem borer and fall armyworm in timely sown *rabi* sorghum crop it is advised to spray Thiamethoxam 12.6 % + Lambda-cyhalothrin 9.5 ZC @ 5 ml or Spinetoram 11.7 SC @ 4 ml per 10 litres of water during clear weather condition.
- Cracking may be observed in grapes due to low temperature. To protect the fruits from cracking, proper irrigation management in grape orchard is advised.

Konkan

- Due to dry weather and increase in temperature, there is possibility of incidence of rugose spiraling white fly on coconut. If incidence is noticed, three spray of Neem oil 0.5% @ 50 ml per 10 litres of water at 15 days interval followed by three sprays of water by pressure pump at 10 days interval is advised.
- To avoid recurrent flowering due to fall in minimum temperature during January-February months, it is advised to spray Gibberellic acid 50 ppm @ 1 g/20 litres of water at time of fully open flower and mustard size fruit stage. Before spraying ensure that a tree has a sufficient flowering.

Hisar

Amount of rainfall received over Hisar is 28 mm (41% excess) during 01 October - 31 December 2021. The extended range rainfall forecast (rainfall) provided for next two weeks (31 December 2021 - 06 January 2022 and 07 - 13 January 2022) over Hisar is normal for week-1 and above normal for week-2.

- Farmers were advised to apply need-based irrigation in timely sown wheat and start sowing of late sown varieties.
- There is a possibility of fall in night temperature and variable weather. Therefore, farmers are advised to keep the animal under sheds and clean the surrounding to control fly and mosquito in cattle shed.

Karnataka

Rainfall received during 01 October - 31 December 2021 over South Interior Karnataka is 502 mm (146% large excess) and North Interior Karnataka is 173 mm (25% excess). The extended range weather forecast (rainfall) for next two weeks (31 December 2021 - 06 January 2022 and 07 - 13 January 2022) over South Interior Karnataka and North Interior Karnataka is below normal for week-1

and; below normal over South Interior Karnataka and above normal over North Interior Karnataka for week-2.

South Interior Karnataka

- Sudden drop in minimum temperature may affects the floral induction in Mango. To manage, it is advised to spray Paclobutrazol as plant growth retardant which restrict the vegetative growth.
- To protect the pulse grains from storage pests, it is advised to apply oils of castor/ linseed/pongamia/neem oil @ 3-5 ml per kg of grains.

Uttar Pradesh

Rainfall received during 01 October - 31 December 2021 over East Uttar Pradesh is 94 mm (96% large excess) and West Uttar Pradesh is 94 mm (188% large excess). The extended range weather forecast (rainfall) for next two weeks (31 December 2021 - 06 January 2022 and 07 - 13 January 2022) over East Uttar Pradesh and West Uttar Pradesh is below normal for week-1 and above normal for week-2.

Western Uttar Pradesh

- Under prevailing weather condition, it is advised to go for sowing of late sown wheat varieties under irrigated condition. Recommended late sown varieties are *Malviya-234, K-7903, K-9162, K-9533, UP-2338, UP-2425, HD-2643, HP-1744, NW-1014, NW-1076, NW-2036, DVW-14, PVW-524* and *NW-1076*.
- To protect animals from cold weather, it is advised to provide balanced diet (Wheat straw with 50 % green fodder) to milch animal and cover door and windows with Jute bags.

Eastern Uttar Pradesh

- Under prevailing weather conditions there is a possibility of blight in potato. Hence, it is advised to use suitable fungicides to protect the crop from blight disease.
- To protect the animals from the cold, it is advised to tie them in the animal house and keep the windows and doors of the stockyard closed at night. It is also advised to provide them balanced diet i.e., 50 grams of mineral powder and 20 grams of salt daily.

Jammu

Amount of rainfall received over Jammu is 122 mm (-8% deficit) during 01 October - 31 December 2021. The extended range weather forecast (rainfall) provided for next two weeks (31 December 2021 - 06 January 2022 and 07 - 13 January 2022) over Jammu is above normal for week-1 and week-2.

- Under prevailing cloudy and high humid weather condition, there is a chance of powdery mildew disease in chick pea crop. To manage, it is advised to apply Suplex @ 2.5g/litre of water.
- Under prevailing weather condition, it is advised to continue the sowing of late sown wheat varieties with the increase in seed rate. Recommended varieties are *PBW-757, WH-1021, Raj-*

3765 and Raj-3077.

Assam

Amount of rainfall received over Assam is 152 mm (-23% deficit) during 01 October - 31 December 2021. The extended range weather forecast (rainfall) provided for next two weeks (31 December 2021 - 06 January 2022 and 07 - 13 January 2022) over Assam is below normal for week-1 and normal for week-2.

- Due to deficit to large deficit rainfall in many districts of Assam, farmers are advised to provide irrigation in the *rabi* vegetable crops like cauliflower, cabbage, broccoli, knol khol, brinjal etc.
- Prevailing weather condition is congenial for late blight disease in potato crops. To control, two spraying of Cymoxanil 8% + Mancozeb 64% @ 2 g/litre of water at an interval of 10-12 days is advised.

Chhattisgarh

Amount of rainfall received over Chhattisgarh is 92 mm (20% excess) during 01 October - 31 December 2021. The extended range weather forecast (rainfall) provided for next two weeks (31 December 2021 - 06 January 2022 and 07 - 13 January 2022) over Chhattisgarh is below normal for week-1 and above normal for week-2.

- Due to continuous cloudy and rainy weather condition, there is chance of aphid attack in oilseed, pulse and vegetable crops. Therefore, monitoring and spraying of neem-based pesticides at initial outbreak during clear weather condition is advised.
- In the extreme cold condition, there is a chance of yellow vein mosaic incidence in vegetable crops. Therefore, farmers are advised to go for spraying of systemic fungicides.

Madhya Pradesh

Amount of rainfall received over Madhya Pradesh is 45 mm (-22% deficit) during 01 October - 31 December 2021. The extended range weather forecast (rainfall) provided for next two weeks (31 December 2021 - 06 January 2022 and 07 - 13 January 2022) over Madhya Pradesh is below normal for week-1 and above normal for week-2.

- Due to the rainfall in previous week, farmers are advised to drain out excess water from the oilseed and pulse crop field.

Gujarat

Amount of rainfall received over Gujarat is 61 mm (106% large excess) during 01 October - 31 December 2021. The extended range weather forecast (rainfall) provided for next two weeks (31 December 2021 - 06 January 2022 and 07 - 13 January 2022) over Gujarat is above normal for week-1 and week-2.

- For the management of leaf curl virus of tomato, it is advised to remove infected plant part and

spray Acetamiprid @ 3 g/15 litres or other systematic pesticide.

Himachal Pradesh

Amount of rainfall received over Himachal Pradesh is 75 mm (-18% deficit) during 01 October - 31 December 2021. The extended range weather forecast (rainfall) provided for next two weeks (31 December 2021 - 06 January 2022 and 07 - 13 January 2022) over Himachal Pradesh is above normal for week-1 and week-2.

- For the successful cultivation of mushrooms, it is advised to maintain room temperature 25 - 28°C and relative humidity around 80 - 85%.
- Under prevailing weather condition, suitable varieties of cauliflower, capsicum and tomato should be transplanted in polyhouse.

West Bengal

Rainfall received during 01 October - 31 December 2021 over Gangetic West Bengal is 277 mm (77% large excess) and Sub-Himalayan West Bengal is 292 mm (62% large excess). The extended range weather forecast (rainfall) provided for next two weeks (31 December 2021 - 06 January 2022 and 07 - 13 January 2022) over Gangetic West Bengal and Sub-Himalayan West Bengal is below normal for week-1 and; normal over Gangetic West Bengal and above normal over Sub-Himalayan West Bengal for week-2.

- Due to water logging condition because of rainfall, newly sown potato and mustard crops are totally affected. Therefore, farmers are advised to go for sowing of direct seeded spinach, radish, carrot etc.

Andhra Pradesh

Rainfall received during 01 October - 31 December 2021 over Rayalaseema is 470 mm (110% large excess) and Coastal Andhra Pradesh and Yanam is 556 mm (116% large excess). The extended range weather forecast (rainfall) provided for next two weeks (31 December 2021 - 06 January 2022 and 07 - 13 January 2022) over Rayalaseema and Coastal Andhra Pradesh above normal for week-1 and; over Coastal Andhra Pradesh is above normal and below normal over Rayalaseema for week-2.

- Present weather conditions are congenial for collar rot disease incidence in chickpea grown in Ananthapuramu, Kurnool districts. To control, farmers are advised to drench soil with Carbendazim @ 1 g or Mancozeb @ 3 g /litre of water.
- Current weather conditions are congenial for infestation of pink boll worm in cotton grown in Srikakulam, Prakasam, Guntur, Krishna, Ananthapuram, YSR Kadapa, and Kurnool districts. For effective control, farmers are advised to spray Profenophos @ 2ml/litre or Thiodicarb 1.5g/ litre of water.

Odisha

Amount of rainfall received over Odisha is 183 mm (39% excess) during 01 October - 31 December 2021. The extended range weather forecast (rainfall) provided for next two weeks (31 December 2021 - 06 January 2022 and 07 - 13 January 2022) over Odisha is below normal for week-1 and above normal for week-2.

- To protect the paddy nursery from cold injury, it is advised to apply a thin layer of well decomposed FYM after sowing of seeds in wet bed to keep the bed relatively warm.
- Because of low temperature, it is advised to apply light irrigation in paddy nursery area during evening time to maintain the soil temperature favourable for seedling growth. In severe cold affected areas use polythene cover at night-time.

Uttarakhand

Amount of rainfall received over Uttarakhand is 220 mm (263% large excess) during 01 October - 31 December 2021. The extended range weather forecast (rainfall) provided for next two weeks (31 December 2021 - 06 January 2022 and 07 - 13 January 2022) over Uttarakhand is normal for week-1 and above normal for week-2.

- For the management of fungal disease in garlic and onion crops, it is advised to apply Mancozeb @ 2.5g per litre of water.
- Under prevailing cold weather condition, it is advised to provide more fodder and mineral-rich compounds to animals and protect the young calves by covering their body with jute bags during the night time.

Punjab

Amount of rainfall received over Punjab is 35 mm (34% excess) during 01 October - 31 December 2021. The extended range weather forecast (rainfall) provided for next two weeks (31 December 2021 - 06 January 2022 and 07 - 13 January 2022) over Punjab is above normal for week-1 and week-2.

- As dry weather is expected in the coming days, farmers are advised to give need-based irrigation to oilseed crops.
- Mulching is advised in vegetable crops i.e. cauliflower, spinach, fenugreek, coriander, radish, turnip, pea, tomato, brinjal, chilli and capsicum to reduce heat loss from the surface.

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