



National Agromet Advisory Services Bulletin

Date of issue: 16 December 2022

based on

Extended Range Weather Forecast (ERFS)

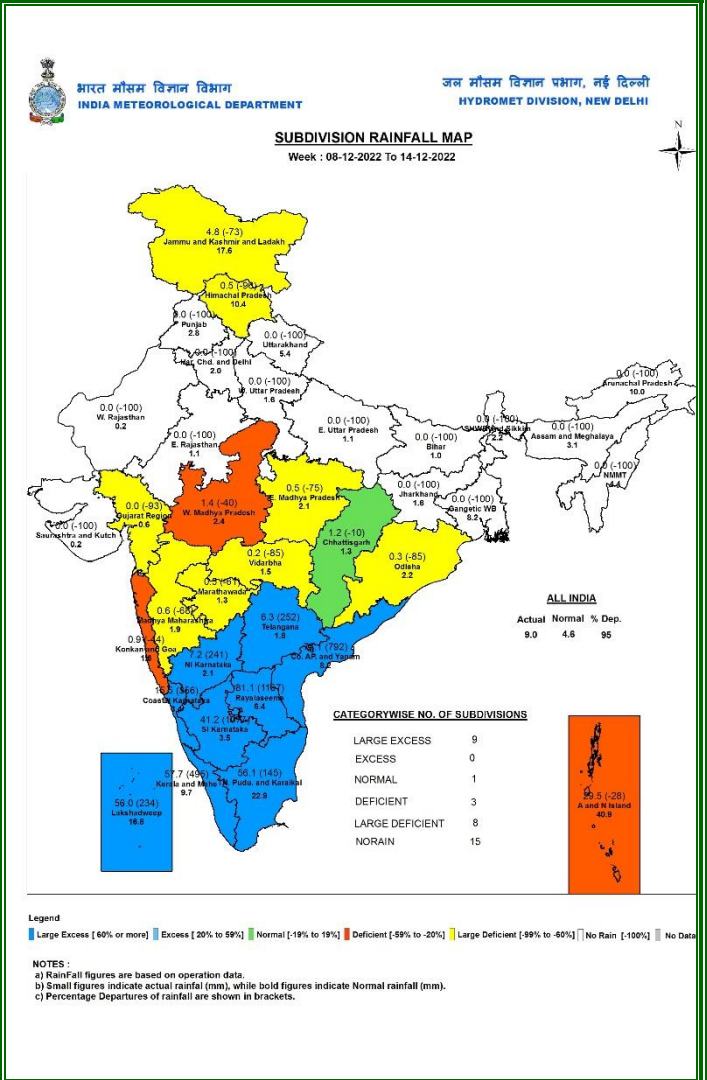
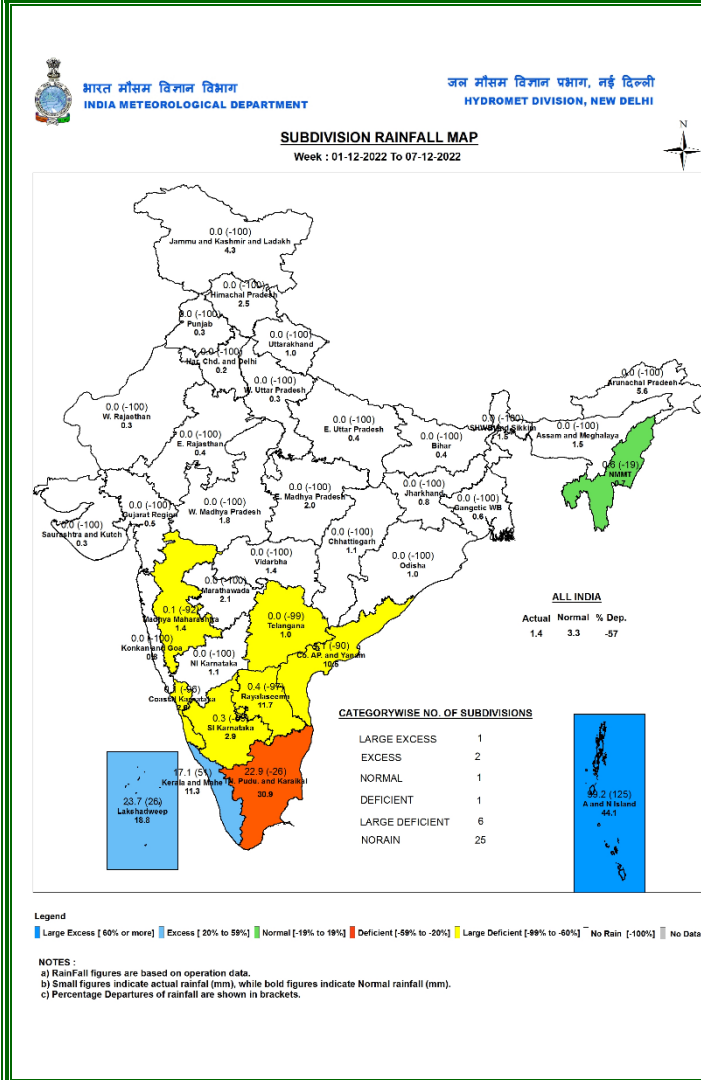
Validity: 16 - 29 December 2022

Issued by

**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 Temperature)

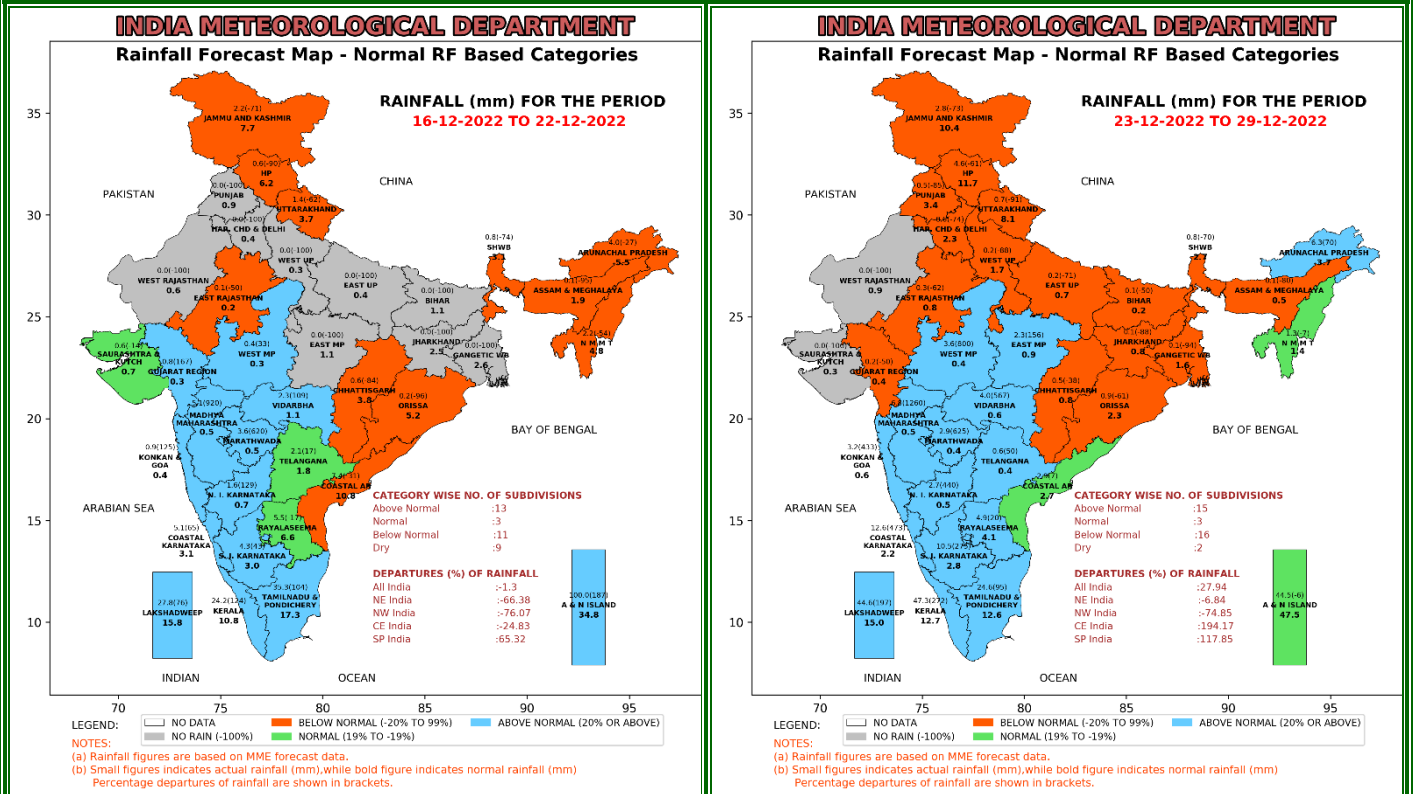
Realized Rainfall (1st to 14th December, 2022)



- Normal or above normal rainfall occurred in both the weeks in Kerala & Mahe, Lakshadweep and Andaman & Nicobar Islands.
- Normal or above normal rainfall occurred in either of the two weeks in Nagaland Manipur Mizoram & Tripura (NMMT), Karnataka, Andhra Pradesh & Yanam, Telangana and Tamil Nadu Puducherry & Karaikal.
- 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- 14th December) (16th to 29th December, 2022)



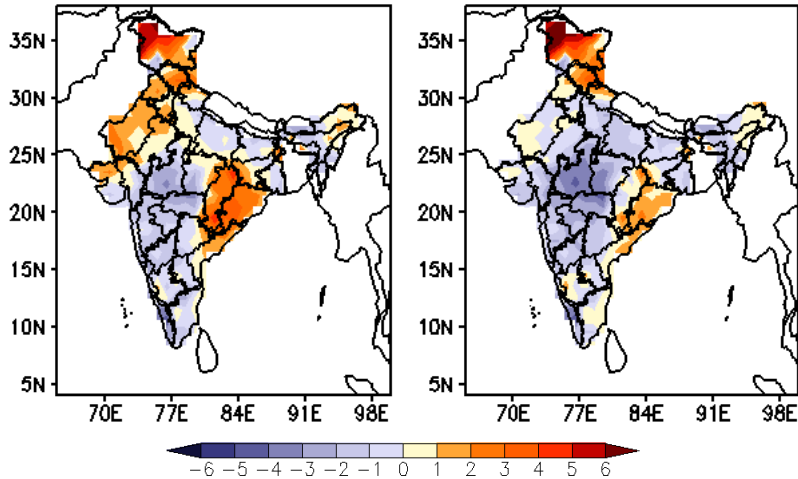
- **Week 1(16.12.2022 to 22.12.2022):** Rainfall is likely to be above normal over Andaman & Nicobar Islands and southern peninsula.
- **Week 2 (23.12.2022 to 29.12.2022):** Rainfall is likely to be slightly above normal over southern peninsula.

**Maximum and Minimum temperature anomaly ($^{\circ}\text{C}$) forecast
for next 2 weeks (IC- 14th December)
(16th to 29th December, 2022)**

MME forecast Tmax anomaly (Deg C)

(Week1: 16Dec-22Dec)

(Week2: 23Dec-29Dec)



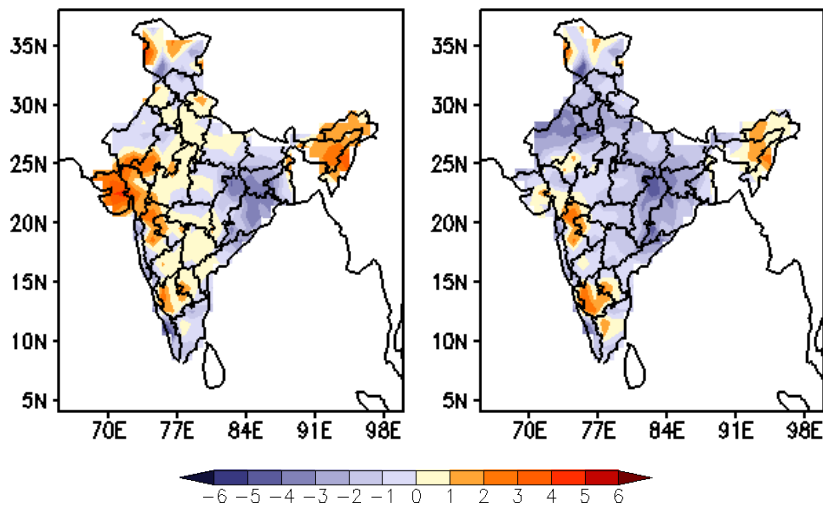
Maximum Temperature (Tmax)

- **Week 1 (16.12.2022 to 22.12.2022):** Tmax will be above normal over northwest India and parts of east coast and adjoining areas.
- **Week 2 (23.12.2022 to 29.12.2022):** Tmax will be above normal over parts of Jammu & Kashmir, Himachal Pradesh and slightly above normal over parts of east coast and adjoining areas.

MME forecast Tmin anomaly (Deg C)

(Week1: 16Dec-22Dec)

(Week2: 23Dec-29Dec)



Minimum Temperature (Tmin)

- **Week 1 (16.12.2022 to 22.12.2022):** Tmin is likely to be below normal over Odisha, Chhattisgarh, Jharkhand and adjoining areas.
- **Week 2 (23.12.2022 to 29.12.2022):** Tmin is likely to be below normal over northwestern and eastern parts of India.

Agromet Advisories

Tamil Nadu

The amount of rainfall received over Tamil Nadu was 425 mm (3% excess) during 01 October - 15 December 2022. The extended range weather forecast (rainfall) for the next two weeks (16 - 22 December 2022 and 23 - 29 December 2022) is above normal for week-1 and; week-2.

- Due to forecast of heavy rainfall in next two weeks, farmers are advised to avoid fertilizer application, insecticides or pesticides spray during rainy days.
- In fruit trees, pruning/ cutting of excess branches may be done to avoid lodging of trees against the anticipated high wind speed.
- Since rainfall is expected in the forthcoming days, farmers are advised to prepare basins for horticultural crops and tree crops and also advised to apply coir compost to conserve moisture in banana, pepper, clove, nutmeg, cinnamon and coconut.

Kerala

The amount of rainfall received over Kerala was 471 mm (-2% deficit) during 01 October - 15 December 2022. The extended range weather forecast (rainfall) for the next two weeks (16 - 22 December 2022 and 23 - 29 December 2022) is above normal for week-1 and; week-2.

- Due to high relative humidity, there is a chance of downy mildew incidence in cucurbitaceous vegetables. To manage, it is advised to spray 2.5 g Mancozeb per one litre of water under the leaves.
- During to cloudy weather condition, there is a chance of leaf folder infestation in *Mundakan* paddy. It can be controlled by using Trichogramma cards (2CC per one acre). Cut the cards in to small pieces and fix in different regions of the field. If the infestation is severe, spray Chlorantraniliprole @ 3ml per 10 litres of water.

Maharashtra

161 mm (57% excess) rainfall over Madhya Maharashtra; 134 mm (41% excess) in Marathwada; 172 mm (23% excess) in Konkan region and 87 mm (19% excess) over Vidarbha was recorded during 01 October - 15 December 2022. The extended range weather forecast (rainfall) for the next two weeks (16 - 22 December 2022 and 23 - 29 December 2022) is above normal over Konkan, Madhya Maharashtra, Marathwada and Vidarbha for week-1 and; week-2, respectively.

Vidarbha

- Prevailing intermittent cloudy weather condition favors the infestation of pod borer in early sown chickpea. To control, it is advised to install 5 *Pheromone* traps per hectare or one spray of 5 % NSKE and ETL based spray of Quinalphos 25 EC 20 ml or Emamectin benzoate 5 SG @ 3 g or Chlorantraniliprole 18.5 SC @ 2.5 ml per 10 litres of water.
- Under prevailing weather condition, transplanting of 4-6 weeks old seedlings of tomato, brinjal, cabbage and cauliflower and seed sowing of coriander, spinach, fenugreek, radish, carrot, dolichols bean and ivy gourd is advised during this period.

Marathwada

- Due to cloudy weather condition infestation of aphids and thrips may observed in groundnut crop. For management, it is advised to spray Imidacloprid 17.8 SL @ 2 ml or Quinalphos 25 EC 20 ml or Oxydemeton-methyl 25 EC 20 ml or Lambda-Cyhalothrin 5 EC @ 6 ml per 10 litres of water.
- Irrigation management is advised in late sown turmeric crop as per requirement. For management of rhizome rot in turmeric, drenching of Biomix @ 150g per 10 litres of water is recommended.

Konkan

- Due to forecast of decrease in minimum temperature, it is advised to spray 1% Potassium nitrate @ 10 g per litres of water, to encourage the flowering in mango.
- Due to forecast of high rainfall and cloudy weather condition, there is possibility for anthracnose disease on mango flush and inflorescence. To manage, it is advised to spray Carbendazim 12% + Mancozeb 63% @ 10 g per 10 litres of water along with insecticides given as per blossom protection schedule.

Madhya Maharashtra

- Spraying of 1% KNO₃ is advised under moisture stress condition on the *rabi* crops.
- Under prevailing weather condition, mulching is advised to reduce the evaporation from soil in orchard crops.

Uttar Pradesh

The amount of rainfall received over East Uttar Pradesh was 149 mm (287% large excess) and over West Uttar Pradesh was 140 mm (430% large excess) during 01 October - 15 December 2022. The extended range weather forecast (rainfall) for the next two weeks (16 - 22 December 2022 and 23 - 29 December 2022) is no rainfall over East Uttar Pradesh and West Uttar Pradesh for week-1 and; below normal over East Uttar Pradesh and West Uttar Pradesh week-2.

Western Uttar Pradesh

- Because of no rainfall forecast in coming weeks, farmers are advised to sow late sown wheat varieties under assured irrigation. Recommended varieties for late sowing 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*.
- As per forecast of no rainfall in coming weeks. Farmers are advised for light irrigation in timely sown wheat and mustard crop.

Eastern Uttar Pradesh

- Under prevailing weather condition, there is a possibility of white fly infestation in potato. To manage this, use of yellow sticky traps at 5 traps per acre is recommended.

Bihar

The amount of rainfall received over Bihar was 82 mm (29% excess) during 01 October - 15 December 2022. The extended range weather forecast (rainfall) for the next two weeks (16 - 22 December 2022 and 23 - 29 December 2022) is no rainfall for week-1 and below normal for week-2.

- In view of low soil moisture and dry weather condition, farmers are advised to provide light irrigation in garlic fields at a regular interval.
- Due to prevailing dry weather condition, farmers are advised to give light irrigation in wheat crop which is at CRI stage (21-25 days after sowing); application of 30 kg nitrogen per hectare is advised 2-3 days after irrigation.

Odisha

The amount of rainfall received over Odisha was 126 mm (-9% deficit) during 01 October - 15 December 2022. The extended range weather forecast (rainfall) provided for the next two weeks (16 - 22 December 2022 and 23 - 29 December 2022) over Odisha is below normal for week-1 and; week-2.

- To prevent damage from prevailing fog, low temperature and moisture stress condition, farmers are advised to provide light irrigation to standing vegetables and crops during morning hours.
- Due to decrease in minimum temperature and foggy condition, there may be a chance of late blight incidence in tomato. To avoid, it is advised to spray 2.5g Metalaxyl + Mancozeb/litre of water or mix 3 g Trichoderma with per kg of seed during seed treatment and avoid excess nitrogen fertilizer and close spacing of plants.
- Due to prevailing low temperature, farmers are advised to use low cost polythene to cover above the vegetables nursery to avoid poor germination.

Jammu

106 mm of rainfall (12% excess) was received over Jammu during 01 October - 15 December 2022. The extended range weather forecast (rainfall) provided for the next two weeks (16 - 22 December 2022 and 23 - 29 December 2022) over Jammu is below normal for week-1 and; week-2.

- Cover all the nursery beds of onion with straw to maintain moisture and retain heat for proper germination.
- Earthing up is recommended in turnip/carrot, to protect the crops from direct sunlight.

Assam

The amount of rainfall received over Assam during 01 October - 15 December 2022 was 221 mm (20% excess). The extended range weather forecast (rainfall) provided for the next two weeks (16 - 22 December 2022 and 23 - 29 December 2022) over Assam is below normal for week-1 and; week-2.

- It is advised to cover the bunches of bananas with white polythene bags to protect against low temperature stress.
- Most of the regions of the state is experiencing dry weather condition since last couple of weeks. Farmers are advised to provide one or two life-saving irrigation at flowering stage in the rapeseed and mustard crops to harness more yield.

Karnataka

Rainfall received during 01 October - 15 December 2022 over South Interior Karnataka was 298 mm (52% excess), 169 mm (30% excess) over North Interior Karnataka and 197 mm (-25% deficit) over Coastal Karnataka. The extended range weather forecast (rainfall) for the next two weeks (16 - 22 December 2022 and 23 - 29 December 2022) is above normal over Coastal Karnataka, North Interior Karnataka and South Interior Karnataka for week-1 and; week-2.

South Interior Karnataka

- To protect the pulse grains from storage pests it is advised to apply oils of Castor/ linseed/honge/ neem oil @ 3-5 ml per kg of grains.
- To protect animals from a sudden drop in temperature, keep the animals in a covered shed/area during the night. The bedding/hay in the animal sheds must be kept dry and changed/aired every day.

Chhattisgarh

The amount of rainfall received over Chhattisgarh was 74 mm (2% excess) during 01 October - 15 December 2022. The extended range weather forecast (rainfall) provided for the next two weeks (16 - 22 December 2022 and 23 - 29 December 2022) over Chhattisgarh is below normal for week-1 and; week-2.

- Under prevailing weather condition, sowing of improved varieties of sunflower like *Modern, TNAU, SUF-7, BSH-1, KBSH-1, DRSH-1, Jwalamukhi, Surya* etc is advised.
- If moisture is present in the fields, then zero till seed drill is advised to use for *rabi* crops sowing like gram etc.

Anantapur

The amount of rainfall received over Coastal Andhra Pradesh was 338 mm (7% excess) and over Rayalaseema was 282 mm (23% excess) during 01 October - 15 December 2022. The extended range weather forecast (rainfall) provided for the next two weeks (16 - 22 December 2022 and 23 - 29 December 2022) is below normal over Coastal Andhra Pradesh and normal over Rayalaseema for week-1 and; normal over Coastal Andhra Pradesh and above normal over Rayalaseema for week-2.

- In the aftermath of Mandous cyclone in the southern parts of the state, the farmers are advised to drain out the excess water from the fields and apply urea @ 15-20 kg and Muriate of Potash @ 10-20 kg/acre as top dressing in rice crop. Also, the farmers are suggested to spray fungicides like Carbendazim @ 1.5 g/litre of water as prophylactic measures to prevent fungal disease incidence in crops.

Gujarat

The amount of rainfall received over Gujarat was 37 mm (15% excess) during 01 October - 15 December 2022. The extended range weather forecast (rainfall) provided for the next two weeks (16 - 22 December 2022 and 23 - 29 December 2022) over Gujarat is above normal for week-1 and; below normal for week-2.

- To avoid heat stress, it is advised to irrigate wheat crop at CRI stage and apply 130 kg urea/ha at optimum moisture condition.

West Bengal

The amount of rainfall received over Gangetic West Bengal was 119 mm (-28% deficit) and Sub Himalayan West Bengal was 210 mm (29% excess) during 01 October - 15 December 2022. The extended range weather forecast (rainfall) for the next two weeks (16 - 22 December 2022 and 23 - 29 December 2022) is no rainfall over Gangetic West Bengal and below normal over Sub-Himalayan West Bengal during week-1 and; below normal over Gangetic West Bengal and Sub-Himalayan West Bengal for week-2.

- Deficient rainfall pattern is observed in the southern districts of West Bengal. Farmers are advised not to go for the sowing of Boro rice.

Uttarakhand

The amount of rainfall received over Uttarakhand was 120 mm (166% large excess) during 01 October - 15 December 2022. The extended range weather forecast (rainfall) provided for the next two weeks (16 - 22 December 2022 and 23 - 29 December 2022) over Uttarakhand is below normal for week-1 and; week-2.

- Under prevailing weather condition, farmers are advised to irrigate the standing crops on need basis and harvest of mature leafy vegetables.

Himachal Pradesh

The amount of rainfall received over Himachal Pradesh was 58 mm (-4% deficit) during 01 October - 15 December 2022. The extended range weather forecast (rainfall) provided for the next two weeks (16 - 22 December 2022 and 23 - 29 December 2022) over Himachal Pradesh is below normal for week-1 and week-2.

- Under adequate soil moisture, farmers are advised to go for the sowing of late sown wheat crop. If the moisture content in the soil is inadequate for ensuring proper germination, farmers are advised to wait for the rains and then go for sowing of wheat.
- Under prevailing weather condition, 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.

Rajasthan

The amount of rainfall received over East Rajasthan was 69 mm (184% large excess) during 01 October - 15 December 2022. The extended range weather forecast (rainfall) provided for the next

two weeks (16 - 22 December 2022 and 23 - 29 December 2022) over East Rajasthan is below normal for week-1 and; week-2.

- Due to high relative humidity, infection of blight may occur in potato. Farmers are advised for constant monitoring in the crop. If symptoms appears, then spray Carbendazim @ 1.0 g/litre of water or Dithane-M-45 @ 2.0 g/litre of water is recommended.

Haryana

The amount of rainfall received over Hisar was 37 mm (130% large excess) during 01 October - 15 December 2022. The extended range weather forecast (rainfall) provided for the next two weeks (16 - 22 December 2022 and 23 - 29 December 2022) over Hisar is no rainfall for week-1 and below normal for week-2.

- Due to possibility of dry and clear weather condition, farmers are advised to apply irrigation in existing vegetable crops and monitor for insect-pests and also adopt weed control on time.

Madhya Pradesh

The amount of rainfall received over Madhya Pradesh was 88 mm (69% large excess) during 01 October - 15 December 2022. The extended range weather forecast (rainfall) provided for the next two weeks (16 - 22 December 2022 and 23 - 29 December 2022) over Madhya Pradesh is no rainfall for week-1 and; above normal for week-2.

- Due to light rainfall and cloudy weather conditions, there may be chance of pod borer infestation in pigeon pea crop. To protect, it is advised to spray of Chlorantraniliprole 9.3 % + Lambda-Cyhalothrin 4.6 % ZC at 80 ml/acre.

Disclaimer:

The predictability of weather depends on many factors which are dynamic in nature. The success of Agromet advisories provided here depends on the accuracy of the weather forecast. In no event, India Meteorological Department (IMD) and Indian Council of Agricultural Research (ICAR) will be liable to the user or to any third party for any direct, indirect, incidental, consequential, special or exemplary damages or lost profit resulting from any use or misuse of the information presented in this bulletin.