



National Agromet Advisory Service Bulletin

based on

Extended Range Weather Forecast (ERFS)

Validity: 03 - 16 December 2021

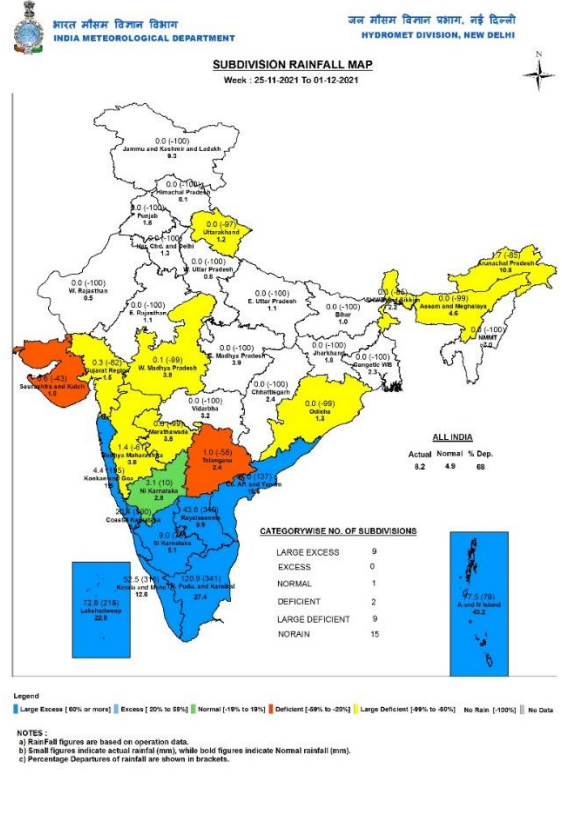
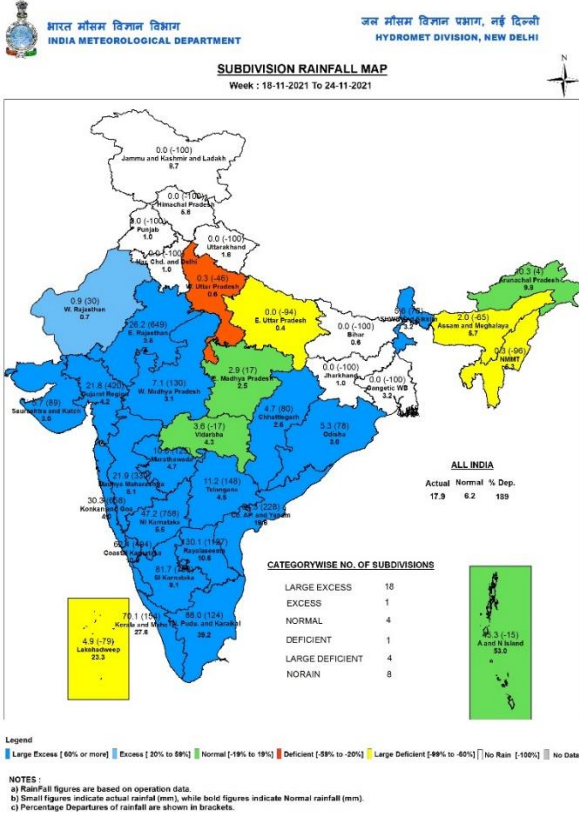
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**AICRP on Agro-Meteorology (AICRPAM),
Central Research Institute for Dryland Agriculture (CRIDA),
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&
India Meteorological Department (IMD),
Earth System Science Organization**

Realized Rainfall and Extended Range Forecast (Rainfall and Temperature)

Realized Rainfall (18th Nov. to 1st December, 2021)



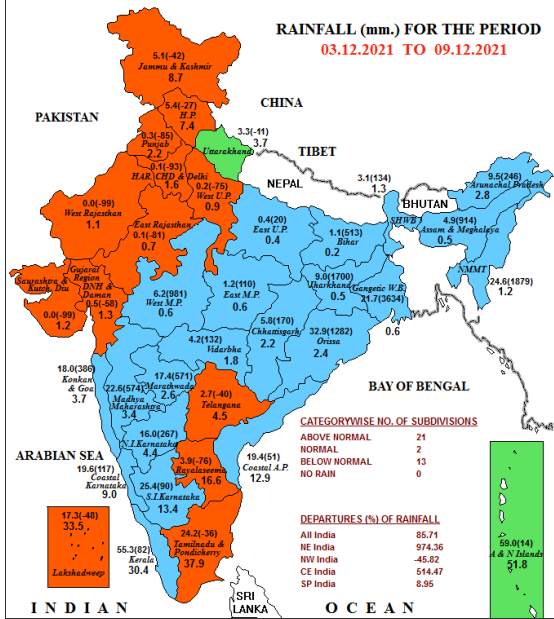
- Normal or above normal rainfall occurred in both the weeks in Konkan & Goa, Coastal Karnataka, North Interior Karnataka, South Interior Karnataka, Rayalaseema, Coastal Andhra Pradesh & Yanam, Tamil Nadu Puducherry & Karaikal, Kerala & Mahe and Andaman & Nicobar Islands.
- Normal or above normal rainfall occurred in either of the two weeks in East Rajasthan, West Rajasthan, Gujarat Region, Saurashtra & Kutch, West Madhya Pradesh, East Madhya Pradesh, Madhya Maharashtra, Marathwada, Vidarbha, Chhattisgarh, Odisha, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Telangana and Lakshadweep.
- Below Normal rainfall /no rain occurred in both the weeks / either of the two weeks over Jammu & Kashmir and Ladakh (UTs), Uttarakhand, Himachal Pradesh, Punjab, Haryana, Chandigarh & Delhi, West Uttar Pradesh, East Uttar Pradesh, Bihar, Jharkhand, Gangetic West Bengal, Nagaland Manipur Mizoram & Tripura (NMMT), and Assam & Meghalaya.

Extended Range Forecast System

Rainfall forecast maps for the next 2 weeks (IC – 01 December) (3rd to 16th December, 2021)

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Rainfall Forecast Map - Normal RF Based Categories

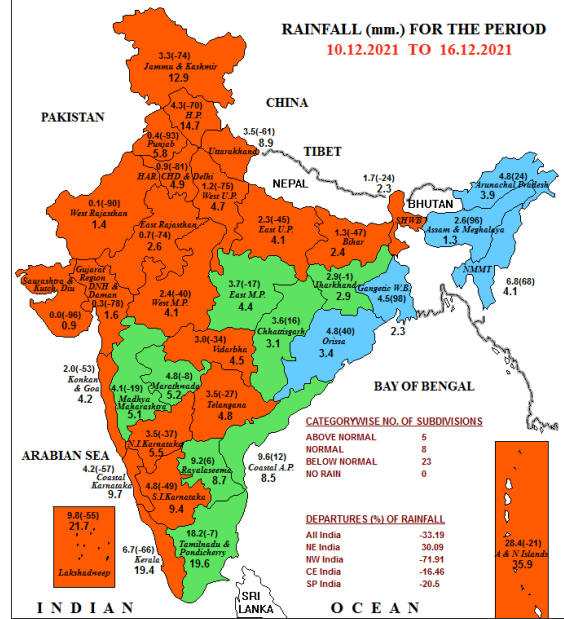


LEGEND: ■ ABOVE NORMAL (+20% OR MORE) ■ NORMAL (+19% TO -19%)
■ BELOW NORMAL (-20% TO -99%) ■ NO RAIN [-100%] ■ NO DATA

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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Rainfall Forecast Map - Normal RF Based Categories

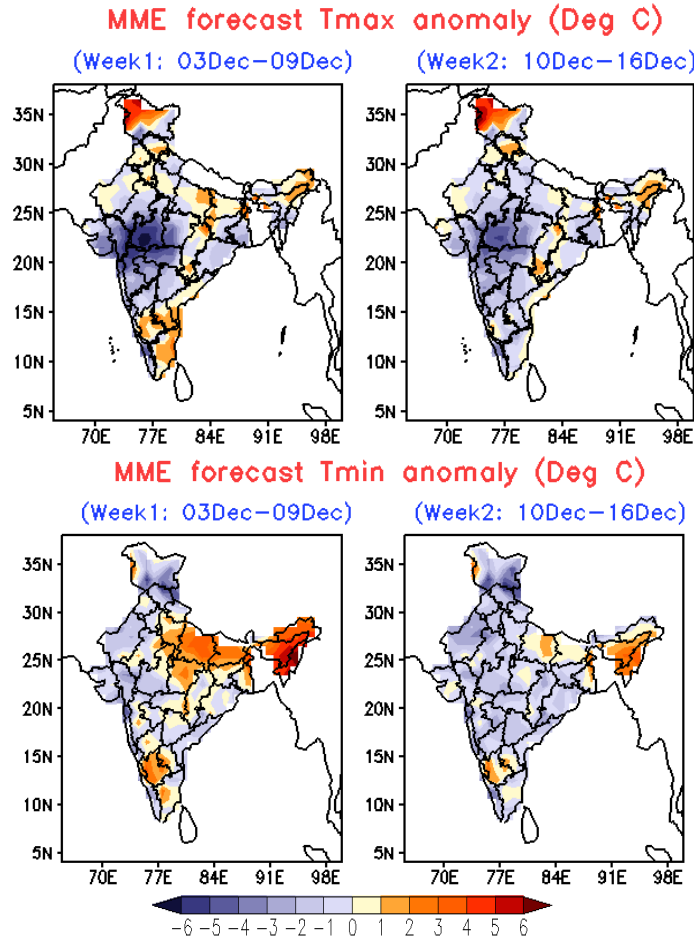


LEGEND: ■ ABOVE NORMAL (+20% OR MORE) ■ NORMAL (+19% TO -19%)
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NOTES:
 [a] Rainfall figures are based on MME Forecast data.
 [b] Small figures indicate actual rainfall (mm.), while bold figures indicate Normal rainfall (mm.)
 Percentage Departures of Rainfall are shown in Brackets.

- **Week 1 (03.12.2021 to 09.12.2021):** Eastern coastal states like North Andhra Pradesh, Odisha, West Bengal and adjoining northeastern states will remain active in week 1 associated with the system. The western coastal states from Kerala, Interior Tamil Nadu, South Interior Karnataka, Kerala and coastal Maharashtra (Konkan), will be slightly active.
- **Week 2 (10.12.2021 to 16.12.2021):** Mostly normal northeast monsoon rainfall is expected.

**Maximum and Minimum temperature anomaly ($^{\circ}\text{C}$) forecast
for next 2 weeks (IC – 01 December)
(3rd to 16th December, 2021)**



Maximum Temperature (Tmax)

- **Week 1 (03.12.2021 to 09.12.2021) and Week 2 (10.12.2021 to 16.12.2021):** Mostly below normal Tmax likely over west-central and southern parts of India. However, some parts of Uttar Pradesh, Bihar, Chhattisgarh, Northeast states, south peninsula over Tamil Nadu and adjoining regions and parts of northern India including Jammu & Kashmir (UTs), Himachal Pradesh and adjoining regions will have above normal Tmax.

Minimum Temperature (Tmin)

- **Week 1 (03.12.2021 to 09.12.2021):** Tmin with slight negative anomaly likely over northwest and adjoining northern India over Jammu & Kashmir (UTs), and Himachal Pradesh region in week 1. However, remaining regions of India will have normal to slightly above normal Tmin particularly over Uttar Pradesh, Bihar, Jharkhand, Gangetic West Bengal, north Madhya Pradesh and north-eastern states.
- **Week 2 (10.12.2021 to 16.12.2021):** More parts of India will have slight negative anomalies compared to week 1 except the region of northeast India, Uttar Pradesh and Bihar.

Strategic Agricultural Planning based on rainfall during next two weeks till 16 December 2021

Agro-met Advisories

Kerala

Amount of rainfall received over Kerala is 997 mm (116% large excess) during 01 October - 02 December 2021. The extended range weather forecast (rainfall) for next two weeks (03 - 09 December 2021 and 10 - 16 December 2021) is above normal for week-1 and below normal for week-2.

- During cloudy weather condition, there is a chance of brown plant hopper infestation in rice. To control, it is advised to spray Imidacloprid @ 3 ml per 10 litres of water or Thiamethoxam @ 2 g per 10 litres of water.
- Continuous rainfall in the past days may cause depletion of nutrients from the soil. To restore nutrients, it is advised to add more organic matter to the soil, and add lime @ 250 g per plant to manage calcium deficiency in banana.

Tamil Nadu

Amount of rainfall received over Tamil Nadu is 664 mm (82% large excess) during 01 October - 02 December 2021. The extended range weather forecast (rainfall) for next two weeks (03 - 09 December 2021 and 10 - 16 December 2021) is below normal for week-1 and normal for week-2.

- Current weather condition is favorable for shoot weevil infestation in cotton. To prevent, soil application of Carbofuran 3 G @ 30 kg is advised 20 days after sowing and earthing up.
- Prevailing weather conditions are congenial for mealy bug infestation in guava and mango. Farmers are advised to spray Triazophos 2 ml + Neem oil 5 ml/litre or Phosalone 35% EC 1.5 ml + Neem oil 5 ml/litre.

Maharashtra

Rainfall received over Madhya Maharashtra is 169 mm (74% large excess); Marathwada is 113 mm (21% excess); Vidarbha is 62 mm (-16% deficit) and Konkan region is 255 mm (90% large excess) during 01 October - 02 December 2021. The extended range weather forecast (rainfall) for next two weeks (03 - 09 December 2021 and 10 - 16 December 2021) over Konkan, Vidarbha, Marathwada and Madhya Maharashtra is above normal for week-1 and; Marathwada and Madhya Maharashtra is normal and Konkan and Vidarbha is below normal for week-2.

Konkan

- Under prevailing weather condition, there is a possibility of infestation by hoppers and powdery mildew disease on mango inflorescence. To protect, it is advised to spray Lambda cyhalothrin 5% EC @ 6 ml + Hexaconazole @ 5 ml or wettable Sulphur 80% @ 20 g per 10 litres of water.
- As light to moderate rainfall expected in coming week, farmers are advised to avoid irrigation in coconut and arecanut orchards.

Vidarbha

- Partly cloudy weather and lowering night time temperature favours infestation of pod borer in timely sown chickpea crop in early stages. To manage the initial incidence of pod borer (*Helicoverpa*), it is advised to install erect bird perches @ 20/ha randomly in the field. For control of above ETL level incidence, undertake a spray of 5% NSKE or Azadirachtin 300 ppm @ 50 ml per 10 litres of water OR Emamectin benzoate 5 % @ 4.5 g per 10 litres of water.

Madhya Maharashtra

- For the management of flower drop in pigeon pea, spraying of Planofix @ 50 ml in 200 litres of water is advised.
- Farmers are advised to go for irrigated wheat sowing by November 15. The recommended varieties are *Trimbak, Tapovan, Godavari*.

Marathwada

- Due to cloudy weather condition during last few days, there may be pod borer infestation in timely sown chickpea crop. To control, it is advised to spray 5% NSKE or Quinalphos 25% EC @ 20 ml or Emamectin benzoate 5% @ 4.5 g per 10 litres of water.
- Due to continuous cloudy weather during last few days infestation of leaf spot disease may observed in turmeric. To control this, it is advised to spray of Azoxystrobin 18.2% + Difenoconazole 11.4% @ 10 ml + 5 ml sticker per 10 litres of water.

Hisar

Amount of rainfall received over Hisar is 26 mm (88% large excess) during 01 October - 02 December 2021. The extended range rainfall forecast (rainfall) provided for next two weeks (03 - 09 December 2021 and 10 - 16 December 2021) over Hisar is below normal for week-1 and week-2.

- Farmers are advised for sowing of barley with recommended varieties *BH 393, BH 902, BH 88* and *BH 986*.
- 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 - 02 December 2021 over South Interior Karnataka is 483 mm (150% large excess) and North Interior Karnataka is 167 mm (26% excess). The extended range weather forecast (rainfall) for next two weeks (03 - 09 December 2021 and 10 - 16 December 2021) over South Interior Karnataka and North Interior Karnataka is above normal for week-1 and below normal for week-2.

North Interior Karnataka

- In the areas where heavy and continuous rainfall has been received during past 8-10 days may adversely impact the growth and development of crops. Therefore, it is advised to drain out excess and standing water by making proper channels in the field.
- As the soil moisture condition is good, sowing of chickpea and wheat (irrigated and *Dicoccum*) may be taken up.

South Interior Karnataka

- Under prevailing weather condition, sowing of horse gram- (var. *PHG-9, KBH-1, Niger*); field bean (var. *HA-3 and 4*) and sunflower (var. *KBSH-1, 41, 42, 44 and 53*); cowpea (var. *KBC-1, TVX-944 and PKB-4*) for vegetable purpose is advised.
- 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.

Uttar Pradesh

Rainfall received during 01 October - 02 December 2021 over East Uttar Pradesh is 87 mm (110% large excess) and West Uttar Pradesh is 93 mm (254% large excess). The extended range weather forecast (rainfall) for next two weeks (03 - 09 December 2021 and 10 - 16 December 2021) over East Uttar Pradesh above normal and West Uttar Pradesh is below normal for week-1 and; below normal over East Uttar Pradesh and West Uttar Pradesh week-2.

Western Uttar Pradesh

- For the management of leaf webber in pigeon pea, it is advised to spray Emamectin benzoate 5% SG @ 250g/ha or Cypermethrin 25% EC @ 500 ml/ha with 500 litres of water solution.

Eastern Uttar Pradesh

- Intercultural operation is advised to check the evapotranspiration losses and proper utilization of nutrient to the crop.

Jammu

Amount of rainfall received over Jammu is 106 mm (51% excess) during 01 October - 02 December 2021. The extended range weather forecast (rainfall) provided for next two weeks (03 - 09 December 2021 and 10 - 16 December 2021) over Jammu is below normal for week-1 and week-2.

- Due to the presence of sufficient moisture in the soil and favorable temperature for germination, farmers may go for sowing of late sown wheat varieties. Recommended late sown wheat varieties are PBW-752, DBW-173, WH-1124, DBW-90, HD-3059.
- Under prevailing weather condition, it is advised to spray Imidacloprid @ 1ml/3litres of water to control cabbage butterfly, and caterpillar in *cole* crops.

Assam

Amount of rainfall received over Assam is 141 mm (-24% deficit) during 01 October - 02 December 2021. The extended range weather forecast (rainfall) provided for next two weeks (03 - 09 December 2021 and 10 - 16 December 2021) over Assam is above normal for week-1 and week-2.

- Current weather is favourable for sowing of carrot seeds in main field. Recommended varieties are *Nantes*, *Pusa Kesar*, *Chutney*.
- Under prevailing weather condition, farmers interested in boro rice cultivation may continue nursery bed preparation for sowing of seeds of recommended boro rice varieties viz., *Boro 1*, *Boro 2*, *Dinanath*, *Swarnabh*, *Kanaklata*, *Arize 6129* etc.

Chhattisgarh

Amount of rainfall received over Chhattisgarh is 63 mm (-12% deficit) during 01 October - 02 December 2021. The extended range weather forecast (rainfall) provided for next two weeks (03 - 09 December 2021 and 10 - 16 December 2021) over Chhattisgarh is above normal for week-1 and normal for week-2.

Because of sufficient amount of moisture in the soil due to the rains in the last days, farmers are advised for sowing of *rabi* crops.

Gujarat

Amount of rainfall received over Gujarat is 57 mm (103% large excess) during 01 October - 02 December 2021. The extended range weather forecast (rainfall) provided for next two weeks (03 - 09 December 2021 and 10 - 16 December 2021) over Gujarat is below normal for week-1 and week-2.

- Intercultural operations and weeding may be carried out as per requirement in standing crops during clear weather condition.

Himachal Pradesh

Amount of rainfall received over Himachal Pradesh is 58 mm (18% excess) during 01 October - 02 December 2021. The extended range weather forecast (rainfall) provided for next two weeks (03 - 09 December 2021 and 10 - 16 December 2021) over Himachal Pradesh is below normal for week-1 and week-2.

- For conservation of soil moisture and maintaining the soil temperature, it is advised to add mulch material in space between two rows of vegetables crops. Addition of mulch also prevents the growth of weeds.
- Under prevailing weather condition, suitable varieties of cauliflower, capsicum and tomato should be transplanted in polyhouse.

Punjab

Amount of rainfall received over Punjab is 35 mm (147% large excess) during 01 October - 02 December 2021. The extended range weather forecast (rainfall) provided for next two weeks (03 - 09

December 2021 and 10 - 16 December 2021) over Punjab is below normal for week-1 and week-2.

- Farmers are advised to complete sowing of long duration varieties of wheat like *PBW 869, PBW 824, PBW 803, Sunehri (PBW 766), PBW 1 Chapati, DBW 222, DBW 187, HD 3226, Unnat PBW 343, Unnat PBW 550, PBW 1 Zinc, PBW 725, PBW 677, HD 3086, WH 1105, HD 2967 and durum wheat WHD 943 and PDW 291* under irrigated conditions.
- It is the optimum time for transplanting of late season varieties of cauliflower and also the best time for sowing of spinach, fenugreek, coriander, radish, turnip and main season varieties of pea.

West Bengal

Rainfall received during 01 October - 02 December 2021 over Gangetic West Bengal is 216 mm (45% excess) and Sub-Himalayan West Bengal is 280 mm (65% large excess). The extended range weather forecast (rainfall) provided for next two weeks (03 - 09 December 2021 and 10 - 16 December 2021) over Gangetic West Bengal normal and Sub-Himalayan West Bengal is above normal for week-1 and over Gangetic West Bengal above normal and Sub-Himalayan West Bengal is below normal for week-2.

- Under prevailing weather condition, transplanting of mature seedlings of cabbage, cauliflower, broccoli from nursery to main fields is advised.

Jharkhand

Amount of rainfall received over Jharkhand is 136 mm (61% large excess) during 01 October - 02 December 2021. The extended range weather forecast (rainfall) provided for next two weeks (03 - 09 December 2021 and 10 - 16 December 2021) over Jharkhand is above normal for week-1 and normal for week-2.

- Under prevailing weather condition, farmers wish to cultivate wheat crop must select late sown wheat varieties. Recommended late sown wheat varieties are *HI-1583, DBW-107, HD-3118 etc.*
- For the management of blight disease in potato crop it is advised to spray fungicide Ridomil @ 1.5 g per litre of water.

Andhra Pradesh

Rainfall received during 01 October - 02 December 2021 over Rayalaseema is 453 mm (125% large excess) and Coastal Andhra Pradesh and Yanam is 345 mm (11% excess). The extended range weather forecast (rainfall) provided for next two weeks (03 - 09 December 2021 and 10 - 16 December 2021) over Rayalaseema is below normal and Coastal Andhra Pradesh above normal for week-1 and; normal over Rayalaseema and Coastal Andhra Pradesh for week-2.

- In Ananthapuramu, Kurnool and Kadapa districts, farmers growing *rabi* groundnut are advised to select the varieties *Dharani, Narayani, K6, K7, K8 Bold, Kadiri Amaravathi, Bheema, TCGS-1157, and TCGS-1073.*

- Present weather conditions are favorable for the incidence of spotted borer in redgram. To control, farmers are advised to spray Novaluron @ 1.0 ml or Thiodicarb @ 1.0 g or Lambda cyhalothrin @ 1.0 ml or Emamectin benzoate @ 0.4 g/litre of water.

Odisha

Amount of rainfall received over Odisha is 134 mm (7% excess) during 01 October - 02 December 2021. The extended range weather forecast (rainfall) provided for next two weeks (03 - 09 December 2021 and 10 - 16 December 2021) over Odisha is above normal for week-1 and week-2.

- Due to the chances of rainfall on 4 and 5 December, farmers are advised to harvest the paddy if 85% grains are matured in a panicle.
- There are chances of wilt and root rot disease incidence in vegetable crops after the rain. To manage, it is advised to drench the root zone with a solution of 1.5 g Streptocycline and 20 g Metalaxyl 8% + Mancozeb 64 % WP mixed in 10 litres of water.

Rajasthan

Amount of rainfall received over Rajasthan is 60 mm (168% large excess) during 01 October - 02 December 2021. The extended range weather forecast (rainfall) provided for next two weeks (03 - 09 December 2021 and 10 - 16 December 2021) over Rajasthan is below normal for week-1 and week-2.

- Under prevailing weather condition, farmers are advised to complete the sowing of wheat crop up to first week of December. Recommended improved varieties are *Raj-3077*, *W.H.-147*, *G.W.-190*, *G.W.-322*, *G.W.-273*, *H.I.-1544*, *Raj-4037*, *H.I.-8498*, *Lok-1* and *Raj-3765*.

Bihar

Amount of rainfall received over Bihar is 136 mm (61% large excess) during 01 October - 02 December 2021. The extended range weather forecast (rainfall) provided for next two weeks (03 - 09 December 2021 and 10 - 16 December 2021) over Bihar is above normal for week-1 and normal for week-2.

- Monitoring is advised for infestation of fruit and shoot borers in brinjal, tomato, chilli, gram and pea. If infestation occurs, installation of pheromone traps @ 3-4 traps per acre is advised. If insect population is observed to be above ETL, then spraying of Spinosad 1.0 ml/4 litre of water is advised.

Disclaimer:

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