



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

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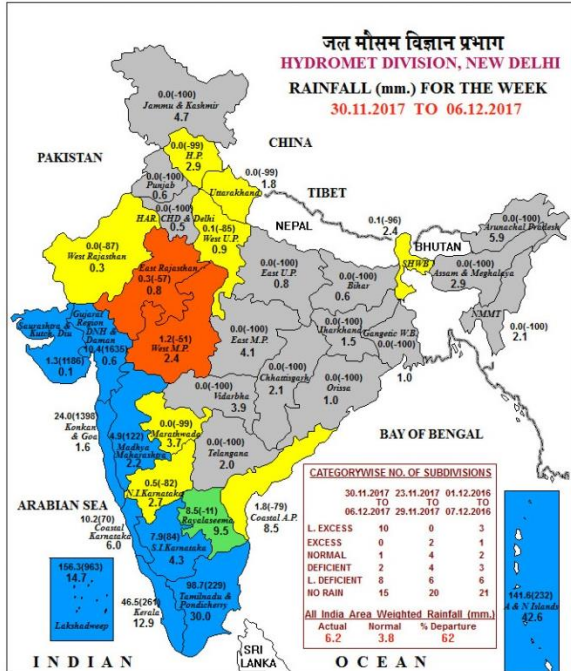
**Issued by
Indian Council of Agricultural Research (ICAR)
All India Coordinated Research Project on Agricultural Meteorology (AICRPAM),
Central Research Institute for Dryland Agriculture (CRIDA), Hyderabad
&
Earth System Science Organization
India Meteorological Department**

Realized Rainfall and Extended Range Forecast (Rainfall and Temperatures)

Realized Rainfall

(30th November to 13th December 2017)

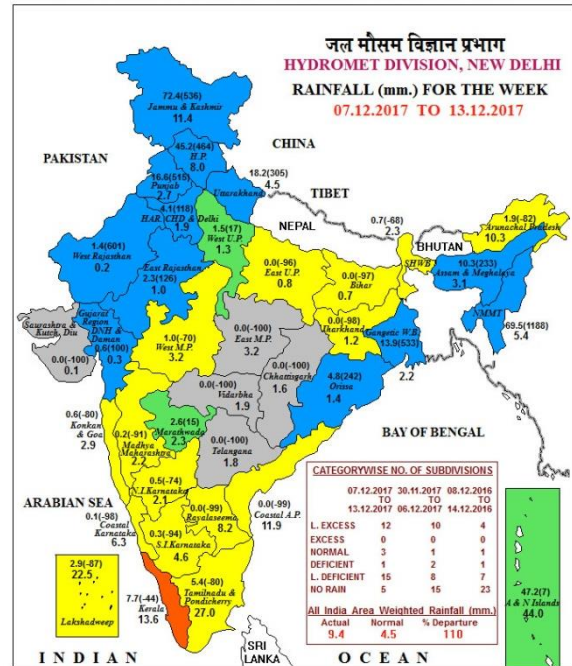
भारत मौसम विज्ञान विभाग INDIA METEOROLOGICAL DEPARTMENT



LEGEND: L. EXCESS (+60% OR MORE) EXCESS (+20% TO +59%) NORMAL (+19% TO -19%)
DEFICIENT (-20% TO -59%) L. DEFICIENT (-60% TO -99%) NO RAIN (-100%) NO DATA

NOTES:
[a] Rainfall figures are based on operational 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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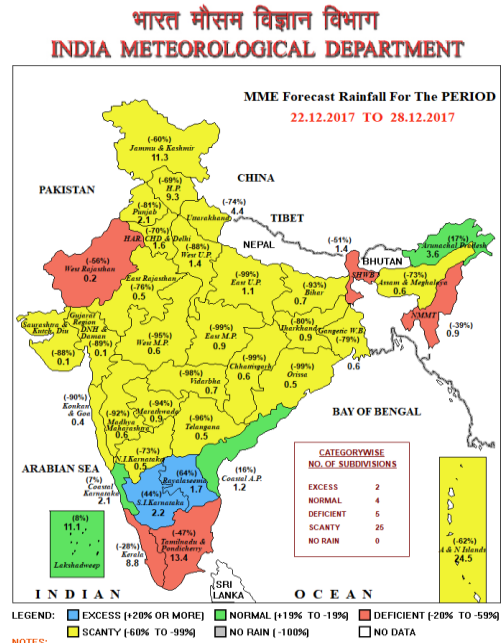
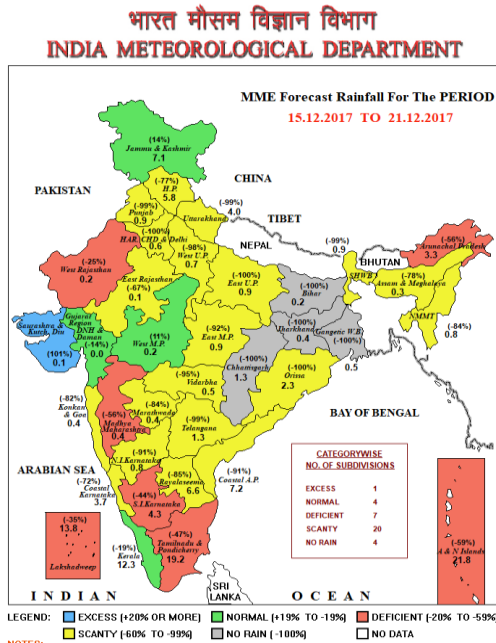
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[b] Small figures indicate actual rainfall (mm.), while bold figures indicate Normal rainfall (mm.)
Percentage Departures of Rainfall are shown in Brackets.

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

Extended Range Forecast System

Rainfall forecast maps for the next 2 weeks (IC – 13 December)

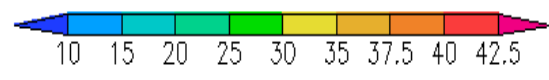
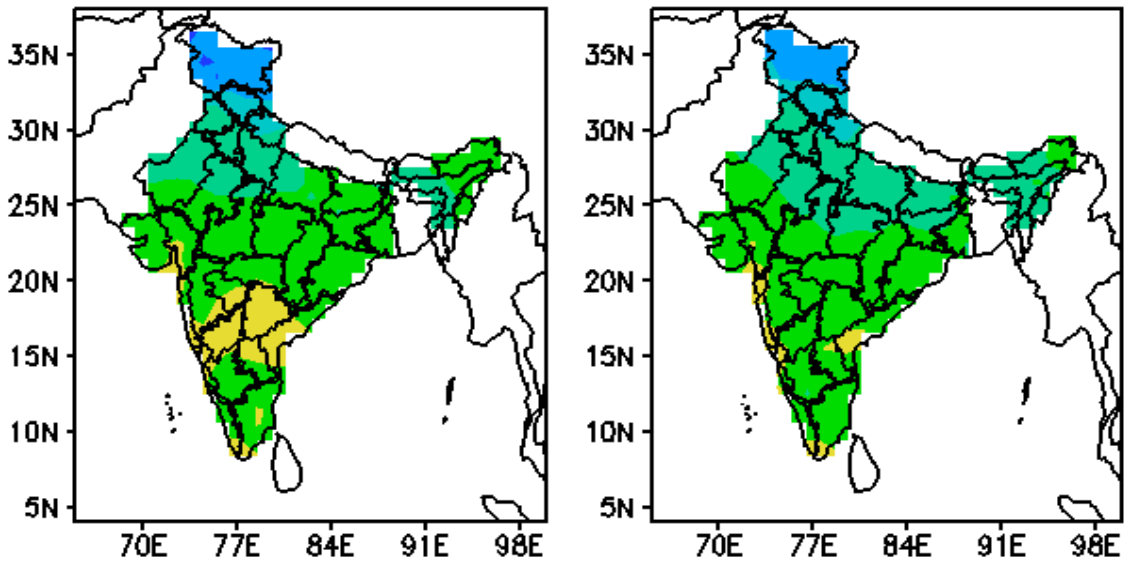
(15th to 28th December 2017)



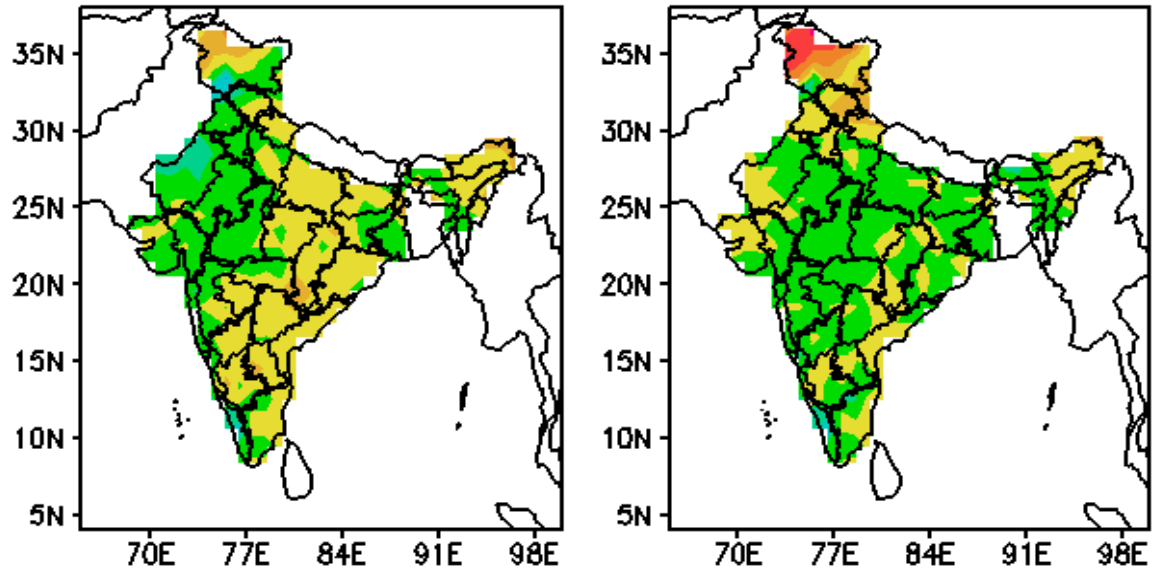
- Extended Range Rainfall Forecast:** Mostly anticyclonic flow over the northwest India and adjoining central India during week 1 (15-21 Dec.) and week 2 (22-28 Dec.). No significant rainfall during next two weeks except at some places over extreme north India and south peninsula.

**Maximum and Minimum temperatures and anomaly ($^{\circ}\text{C}$) forecast for next 2 weeks (IC – 13
December)
(15th to 28th December 2017)**

MME Bias Corrected Actual Tmax (Deg C)
(Week1: 15Dec–21Dec) (Week2: 22Dec–28Dec)



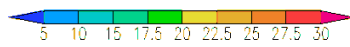
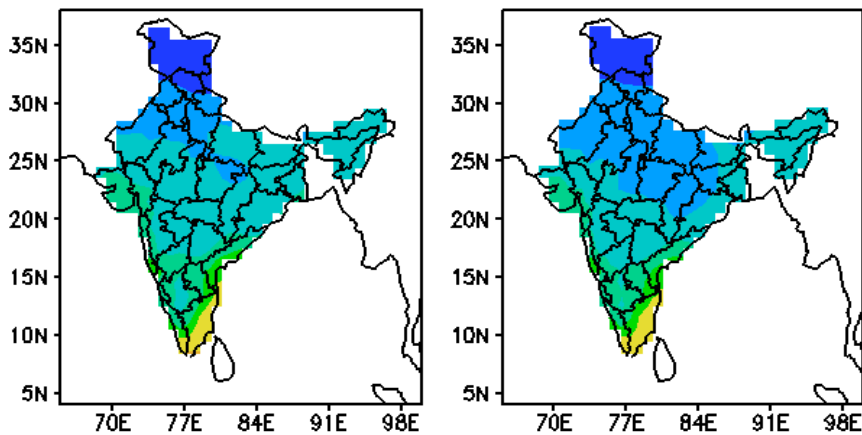
MME Bias Corrected Tmax Anomaly (Deg)
(Week1: 15Dec–21Dec) (Week2: 22Dec–28Dec)



MME Bias Corrected Actual Tmin (Deg C)

(Week1: 15Dec-21Dec)

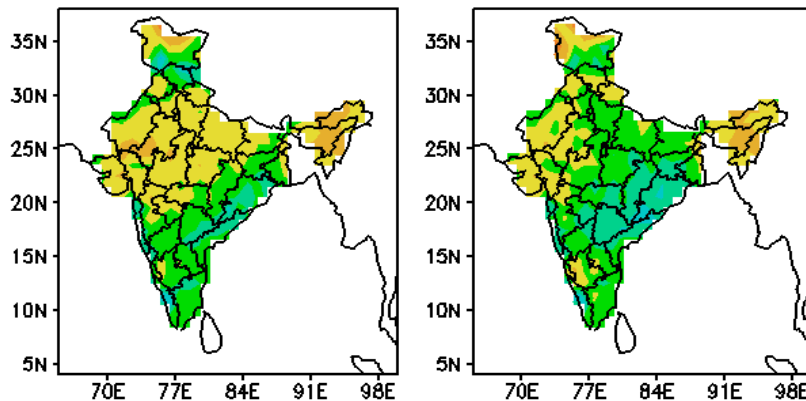
(Week2: 22Dec-28Dec)



MME Bias Corrected Tmin Anomaly (Deg)

(Week1: 15Dec-21Dec)

(Week2: 22Dec-28Dec)



Maximum Temperature (Tmax) :

- **Week 1 (15-21 Dec.):** Tmax will be below normal over Northwest India and along the western parts of the country during week 1, whereas, it will be above normal towards the eastern parts of the country during the week.
- **Week 2 (22-28 Dec.):** Mostly below normal Tmax over central parts of India during week 2.

Minimum Temperature (Tmin) :

- **Week 1(15-21 Dec.):** Tmin will be below normal over regions of Eastern coastal, south peninsula and parts of north India, during week 1.
- **Week 2 (22-28 Dec.):** The below normal Tmin belt is likely to expand into more parts of central and northern India during week 2.

Strategic Agricultural Planning based on rainfall during next two weeks till

28th December 2017

Agromet Advisories

Tamil Nadu

Rainfall Situation

Rainfall received during the period of 01 October to 13 December 2017 over Tamil Nadu is 388.9 mm, which is 4% deficit than the normal. The extended range weather forecast provided for next two weeks (15 to 21 December and 22 to 28 December) for Tamil Nadu is below normal for both the weeks.

- Moderate to high relative humidity coupled with moderate minimum temperature is conducive for the occurrence of stem weevil, stem borer and leaf hopper incidence in cotton. It also favorable for the incidence of powdery mildew disease. To control the above sucking pests, farmers are advised to spray either Dimethoate 30 EC @ 660 ml / ha or Imidachloprid 200 SL @ 100 ml / ha.
- Prevailing weather condition is conducive for the occurrence of green leaf hopper and leaf roller incidence in nursery-rice crop. Apply 12.5 kg of neem cake as basal and spray Fenthion or Phosphomidan @ 100 ml / ha as a control measures.
- Expected high cloud cover with moderate minimum temperature is likely to be favorable for infestation of sucking pest like white fly, thrips and aphids in pulses. It produces yellowing, cupping and curling symptoms in the plants. Farmers are advised to remove yellow mosaic virus (YMV) affected plants, and apply anyone of the systemic insecticide like Dimethoate 20 EC @ 500 ml / ha or Thiamethoxam 75 WS @ 1 g/ 3 litre.

Kerala

Rainfall Situation

Rainfall received during the period of 01 October to 13 December 2017 over Kerala is 432.6 mm, which is 8% deficit from the normal. The extended range weather forecast provided for next two weeks over Kerala is normal for week 1 (15 to 21 December) and below normal for week 2 (22 to 28 December).

- Due to prevailing weather condition, there is a chance of occurrence of sigatoka disease in banana. As a precaution, farmers are advised to spray Pseudomonas @ 20g/litre. In case of severe attack, spray Bavistin @ 1gm/litre of water on lower surface of leaf (by mixing with gum)
- Thrips and mites incidence may occur in vegetables due to likely weather conditions. As a control measures, apply 2% neem oil+garlic emulsion under the leaf surface at 10 days intervals. If the attack is severe, apply Spiromecifen @ 8 ml/10 L of water.

Karnataka

Rainfall Situation

Rainfall received during the period of 01 October to 13 December 2017 over different meteorological sub-divisions of Karnataka are, North Interior Karnataka: 155.5 mm, which is 8% excess than normal and South Interior Karnataka: 201.4 mm, which is 2% deficit than normal. The extended range weather forecast provided for next two weeks over North Interior Karnataka is below normal for both the weeks (15 to 21 December and 22 to 28 December) and South Interior Karnataka is below normal for week 1

(15 to 21 December) and above normal for week 2 (22 to 28 December).

North Interior Karnataka:

- As the below normal rainfall is forecasted in coming weeks, farmers are recommended to take agronomical measures like hand weeding and repeated intercultivation and earth up the rows, and keep the crops free from weeds to conserve the in-situ soil moisture.
- Farmers are also advised to provide supplemental irrigation in *rabi* crops wherever possible.
- Farmers are advised to give de-worming medicine to livestock and vaccinate (ET vaccine) sheep and goats against Enterotoxemia and for milch animals regularly follow schedule of 1 kg feed + 50 g mineral mixture per 2 litres of milk yield and feed all the animals with both green fodder and dry fodder.

Maharashtra

Rainfall Situation

Rainfall received during the period of 01 October to 13 December 2017 over different meteorological sub divisions of the state are: Vidarbha: 57.8 mm (26% deficient); Marathwada: 105.4 mm (6% surplus); Madhya Maharashtra: 122.3 mm (15% surplus) and Konkan: 182.2 mm (23% surplus). The extended range weather forecast provided for next two weeks (15 to 21 December and 22 to 28 December) over all the meteorological sub divisions of the state are below normal.

Madhya Maharashtra

- Present cloudy weather is favorable for aphids incidence in *rabi* sorghum, safflower and vegetable crops. Farmers are advised to spray dimethoate 30 EC @ 10 ml in 10 lit of water.
- To control pod borer in pulses, spray 5% NSKE and also erect T-shaped bird perches @ 50/ha which will help in controlling pest population.
- Present weather condition favors attack of thrips in chili therefore spray diamethoate 30% concentrate @ 15 ml or lambda pyhalothrine 5% concentrate @ 6 ml per 10 lit. of water as a precautionary measures.

Marathwada

- As below normal rainfall is forecasted, supplemental irrigation may be given wherever possible.
- Due to conducive weather condition, incidence of tur pod fly may occur in late sown pigeon pea. To control this, spray Monocrotophos @ 13 ml or Diamethoate @ 10 ml per 10 liter of water.
- Mrug bahar treatment during fruit initiation stage in banana crop may be followed, as below normal rainfall is forecasted.
- Farmers are advised to protect the animals from low temperature during early morning, apply curtains of gunny bags for animal shed. Maintain 30°C temperature of shed by using electric bulbs.

Madhya Pradesh

Rainfall Situation

Rainfall received during the period of 01 October to 13 December 2017 over different meteorological sub-divisions of Madhya Pradesh are, West Madhya Pradesh:15.9 mm, which is 68% deficit to the normal and East Madhya Pradesh: 19.5 mm, which is 64% deficit to the normal. The extended range weather forecast provided for next two weeks over West Madhya Pradesh is normal for week 1 (15 to 21 December) and below normal for week 2 (22 to 28 December) and East Madhya Pradesh is below

normal for both the weeks (15 to 21 December and 22 to 28 December).

East Madhya Pradesh

- As below normal rainfall is forecasted, so farmers are advised to provide protective irrigation followed by fertilizer in wheat, vegetables and rabi sown crops.
- Farmers are recommended for Immunization of cattle against diseases.

Chhattisgarh

Rainfall situation

Rainfall received over Chhattisgarh during the period of 01 October to 13 December 2017 is 61.8 mm, which is 19% deficit than the normal. The extended range weather forecast provided over Jharkhand for next two week is no rain for week 1 (15 to 21 December) and below normal for week 2 (22 to 28 December).

- Farmers are advised to complete the sowing of early maturing varieties of wheat crop and the seed rate should be increased by 25% under irrigated condition.
- The vegetable which are transplanted in last month should be given nitrogenous fertilizer after inter culture operation along with in-situ soil conservation measures.

Jharkhand

Rainfall situation

Rainfall received over Jharkhand during the period of 01 October to 13 December 2017 is 106.2 mm, which is 22% excess than the normal. The extended range weather forecast provided for Jharkhand is no rain for week 1 (15 to 21 December) and below normal for week 2(22 to 28 December).

- As no rainfall is forecasted, farmers are advised to follow inter culture operations in wheat, pulse and oilseed crops to conserve soil moisture and control weeds. Rapeseed and mustard crops may experience the infestation of aphids, spray Monocrotophos @ 2 ml per litre of water or Emidachlorprid @ 1 ml per litre of water to control them.
- Existing weather condition may favour the attack of leaf spot disease in wheat. Sprayfungicide Indofil M-45 @ 2 g/liter of water as and when symptom of disease appears on leaves.
- There is a chance of the attack of powdery mildew disease in green pea. Spray Kairathen @ 1 ml per liter of water or Sulfex @ 3 gm per liter of water.

Rajasthan

Rainfall Situation

Rainfall received during the period of 01 October to 13 December 2017 over the meteorological subdivisions of Rajasthan are: West Rajasthan and East Rajasthan have received 2.0 mm and 3.0 mm rainfall respectively over the period, which is 77% deficient for West and 89% deficient for East Rajasthan. The extended range weather forecast provided over meteorological subdivisions of Rajasthan for next two (15 to 21 December and 22 to 28 December) is below normal.

East Rajasthan

- Farmers are recommended for dusting of Methyl Parathion 2% or Carbaryl 5% @ 20 to 25 kg/ha or

spray Chloropyriphos 20 EC @600 ml /ha for the control of aphids in mustard. Dusting should be done during morning or evening hours.

- As below normal rainfall is forecasted, farmers are recommended to carry out soil moisture conservation practices like weeding in wheat, inter cultural operation in vegetables and follow irrigation management.
- Farmers are advised for sowing of late sown wheat under irrigated conditions and recommended varieties of wheat are: Raj-4037, Raj-4238, Raj-3765, HD-2932, and Lok-1 with 25% higher seed rate of 125 kg/ha.
- Sudden dip in minimum temperature may likely to occur in coming weeks, farmers are advised to take suitable protection measures to protect poultry birds and livestock.

Assam

Rainfall Situation

Assam received 49 mm of rainfall during the period of 01 October to 13 December 2017, which is 25% excess to the normal. The extended range weather forecast provided for (15 to 21 December and 22 to 28 December) Assam is below normal for both the weeks.

- Farmers are advised to carry out thinning operation in rapeseed and mustard for maintaining the optimum plant population in the field and to conserve soil moisture as below normal rainfall is forecasted.
- Farmers are advised for earthing up in potato at 25 days after planting (stolon formation stage), just before first irrigation.
- Farmers are also recommended for vaccinate their poultry birds to control the ranikhet disease.

Haryana

Rainfall Situation

Rainfall received during the period of 01 October to 13 December 2017 over Haryana is 5.6 mm, which is 77% deficit than the normal. The extended range weather forecast provided (15 to 21 December and 22 to 28 December) for Haryana is below normal for both the weeks.

- Due to forecasting for possibility of dry weather and below normal rainfall, farmers are advised to do the intercultural operations and provide irrigation wherever possible and required. Intercultural operations are advised for conserving the moisture and removing weeds in mustard crop.
- Possibility of clear and dry weather and below normal rainfall is forecasted, farmers are advised to apply the 1st irrigation after completion of 21 days after sowing (CRI stage). Farmers are also recommended to go for late sowing of wheat crop with anyone of the following varieties viz. PBW 373, WH 1021, WH 1124 and Raj 3765. Before sowing, seeds should be treated with Bavistin or Vitavex @ 2.0 g per Kg of seed.
- Due to possibility of fall in night temperature, protect the animals from cold winds and chill by keeping them in sheds during night hours.

Himachal Pradesh

Rainfall Situation

Rainfall received during the period of 01 October to 13 December 2017 over Himachal Pradesh is 52.4

mm, which is 28% deficit than the normal. The extended range weather forecast provided (15 to 21 December and 22 to 28 December) for Himachal Pradesh is below normal for both the weeks.

- As below normal rainfall is forecasted during the next week, the farmers are advised to prepare their fields for sowing of Rabi crops under irrigated conditions. The area where sowing of wheat is yet to be completed, farmers are advised to complete sowing with recommended late varieties under irrigation facility.
- As cold wave conditions are likely to prevail in most of the state so farmers are advised to protect the animals from morning and evening low temperature conditions.

Jammu

Rainfall Situation

Rainfall received during the period of 01 October to 13 December 2017 over Jammu and Kashmir is 84.0 mm, which is 3% deficit from the normal. The extended range weather forecast provided over Jammu & Kashmir is normal for week 1 (01 to 07 December) and below normal for week 2 (08 to 14 December).

- As normal rainfall is forecasted, farmers may withhold the irrigation in vegetable field and rabi sown crops.
- Farmers are advised to do hoeing and weeding in 20 days old crop to conserve the soil moisture
- Farmers are advised to apply second dose of fertilizer as top dressing in normal sown rabi wheat.
- Farmers may sow the late sown wheat crop with following recommended varieties:WH-1021, PBW-590, PBW-373, Raj-3077, Raj-3765, DBW-16.

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