



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

**Validity for 23<sup>rd</sup> March to 5<sup>th</sup> April 2018**

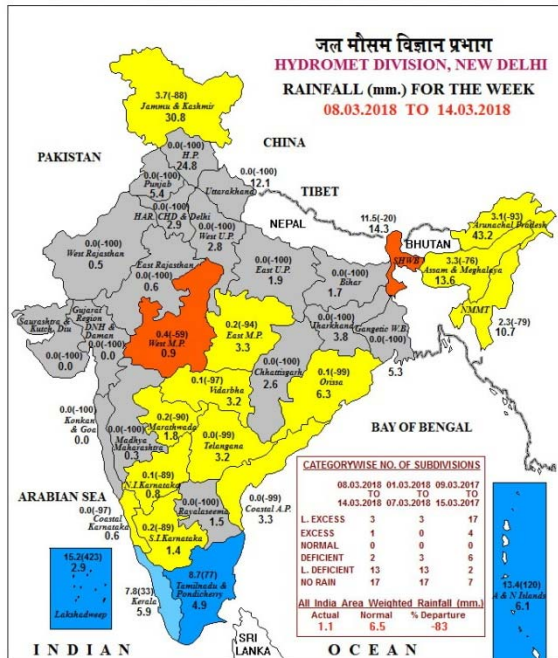
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**Central Research Institute for Dryland Agriculture (CRIDA), Hyderabad.**  
**&**  
**Earth System Science Organization**  
**India Meteorological Department**

## Realized Rainfall and Extended Range Forecast (Rainfall and Temperatures)

### Realized Rainfall (8<sup>th</sup> to 21<sup>st</sup> March 2018)

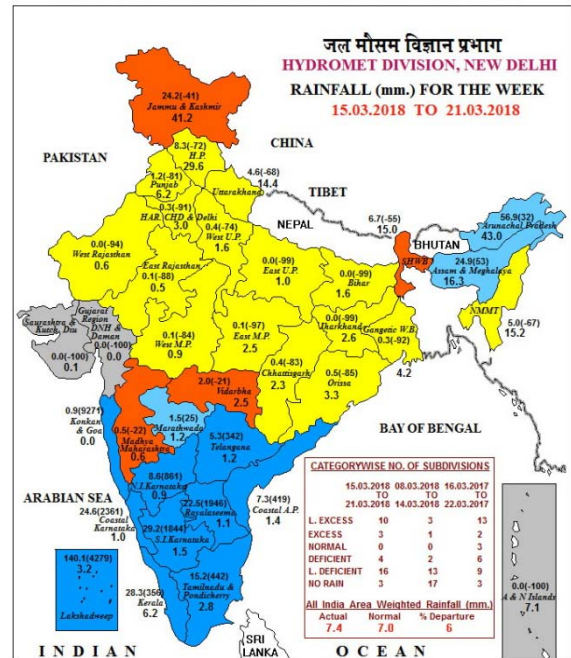
#### भारत मौसम विज्ञान विभाग INDIA METEOROLOGICAL DEPARTMENT



**LEGEND:** L. EXCESS (+60% OR MORE) EXCESS (+20% TO +59%) NORMAL (+19% TO -19%)  
L. 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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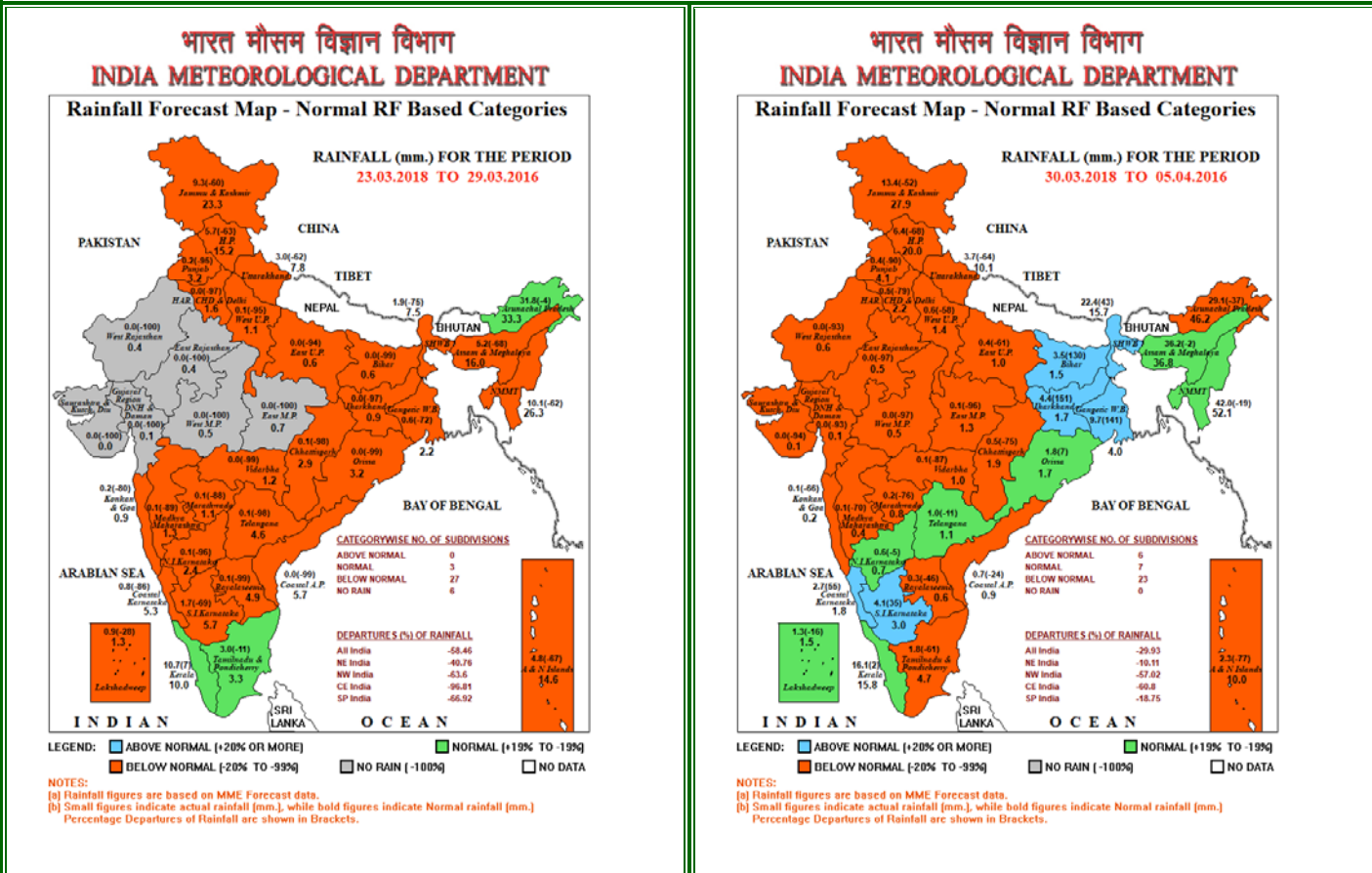
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**NOTES:**  
[a] Rainfall figures are based on operational data.  
[b] Small figures indicate actual rainfall (mm.), while bold figures indicate Normal rainfall (mm.)  
Percentage Departures of Rainfall are shown in Brackets.

- Above normal rainfall occurred during last two weeks in Kerala, Tamil Nadu and Lakshadweep.
- Above normal rainfall occurred in either of the last two weeks in Arunachal Pradesh, Assam & Meghalaya, Konkan & Goa, Marathwada, Karnataka, Andhra Pradesh, Telangana and Andaman & Nicobar Islands.
- Below normal rainfall/no rain occurred during last two weeks over rest of the country.

## Extended Range Forecast System

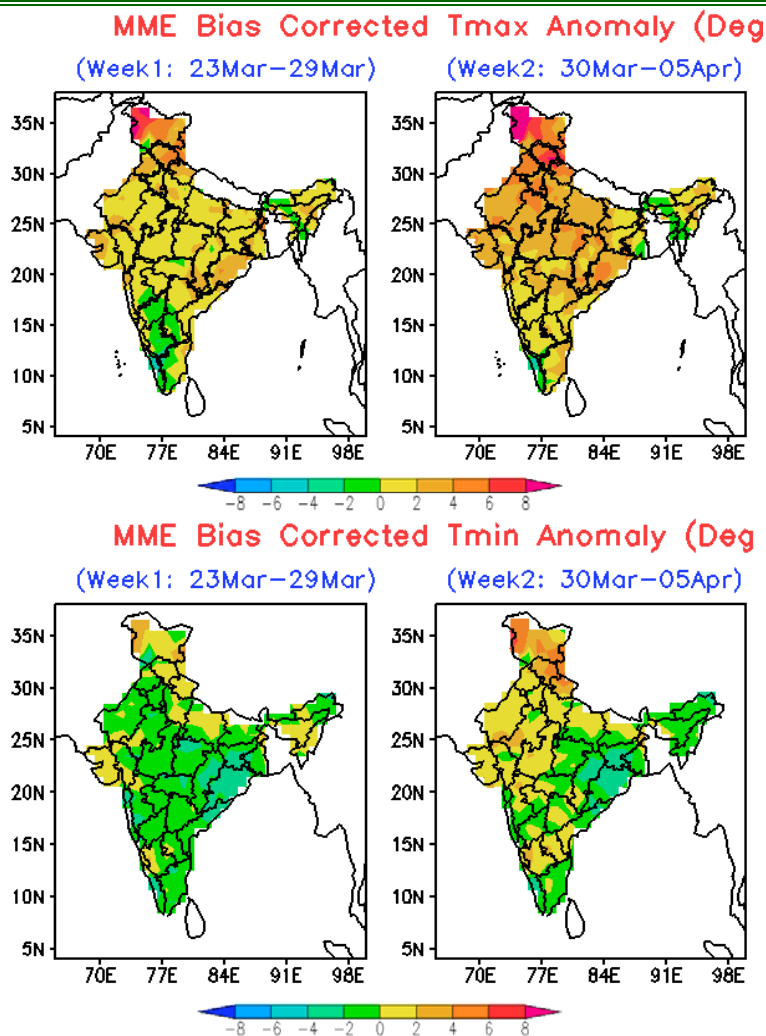
**Rainfall forecast maps for the next 2 weeks (IC – 21 March)  
(23<sup>rd</sup> March to 5<sup>th</sup> April 2018)**



### Extended Range Rainfall Forecast

- **Week 1 (23.03.2018 to 29.03.2018) and week 2 (30.03.2018 to 05.04.2018):** Slight rainfall over isolated region of southern peninsula, northeast India and extreme north India (Jammu & Kashmir and Northern Himalayas).

Maximum and Minimum temperature anomaly ( $^{\circ}\text{C}$ ) forecast for next 2 weeks (IC – 21 March)  
(23<sup>rd</sup> March to 5<sup>th</sup> April 2018)



### Tmax (Maximum Temperature)

- **Week 1 (23.03.2018 to 29.03.2018):** As indicated earlier, the area of above normal Tmax is likely to increase with except isolated parts of the western parts of south peninsula (where Tmax anomaly will be negative) most of India will have above normal Tmax during the week. The Tmax anomaly will be slightly higher over coastal regions of Odisha and neighbourhood.
- **Week 2 (30.03.2018 to 05.04.2018):** Above normal Tmax over most parts of India with anomaly exceeding 4 to 5 deg C over central, eastern and northern India. (Need to watch for this period for heat related issues).

### Tmin (Minimum Temperature)

- **Week 1 (23.03.2018 to 29.03.2018):** Except some parts of northwest India and western India Tmin will be mostly below normal.
- **Week 2 (30.03.2018 to 05.04.2018):** Above normal Tmin area is likely over Northwest and adjoining region of India, whereas the eastern coastal region and adjoining central India Tmin will be negative.

## **Strategic Agricultural Planning based on rainfall during next two weeks till**

**5<sup>th</sup> April 2018**

### **Agromet Advisories**

#### **Kerala**

##### **Rainfall Situation**

Rainfall received during the period of 01 to 21 March 2018 over Kerala is 36.9 mm, which is 120% excess compared to the normal. The extended range weather forecast provided for next two weeks [23 to 29 March (week-1) and 30 March to 5 April (week-2)] is: normal for both the weeks.

- Weather is conducive for leaf folder incidence in rice. It can be controlled by using trichogramma cards (2CC per one acre). If the incidence is severe, spray Quinalphos @ 2ml per one litre of water, after the forecasted spell of rainfall.
- Farmers are advised to keep vigilance against rhizome weevil infestation in banana. Mulch the basins to conserve soil moisture and irrigate once in three days. Against Sigatoka leaf spot disease, spray 1% Bordeaux mixture or Tilt 25 EC @ 1ml/litre of water, after the forecasted spell of rainfall. Remove and destroy severely affected banana leaves.
- To control fruit fly, remove and destroy affected and decayed fruits. Use special pheromone traps like cue lure (60/acre) for vegetables or Thulasi/fruit traps. If the population is not reduced, spray mixture of malathion 2 ml per litre of water + jaggery 10 g at flowering and fruit initiation, after the forecasted spell of rainfall.

#### **Karnataka**

##### **Rainfall Situation**

Rainfall received during the period of 01 to 21 March 2018 over different meteorological subdivisions of Karnataka is: North Interior Karnataka - 8.7 mm (336 % excess), South Interior Karnataka - 5.0 mm (486 % excess) and Coastal Karnataka - 24.7 mm (1075 % excess). The extended range weather forecast provided for next two weeks over all the meteorological subdivisions of the state are: below normal during week-1; above normal over South Interior and Coastal Karnataka, normal over North Interior Karnataka during week-2.

##### **South Interior Karnataka**

- Pigeon pea: In already harvested fields the farmers are advised to remove the half cut stubbles from their fields. This will avoid multiplication and spreading of sterility mosaic disease.
- For soil moisture conservation in mango orchard, weeds and crop residues mulching is recommended.
- Spray Lambda Cyhalothrin 5EC@ 0.5 ml/ litre of water or sulphur dust 80 W @3g/litre of water against the Powdery mildew diseases in pulses, during week-1.

### **North Interior Karnataka**

- Farmers are advised to plough the land and the crop residue should be incorporated in the soil. This facilitates *in situ* conservation of water during the pre-monsoon rains and also helps to conserve the soil.
- Farmers are advised to take up harvesting, threshing and drying of matured *rabi* crops and to take up plant protection measures in horticultural crops like tomato, brinjal, pomegranate and lime during week-1.

### **Maharashtra**

#### **Rainfall Situation**

During the period of 01 to 21 March 2018 over different meteorological sub divisions of the state is: Konkan - 0.9 mm (9271% deficit), Madhya Maharashtra - 0.5 mm (64% deficit), Vidarbha - 2.1 mm (75% deficit) and Marathwada - 1.7 mm (58% deficit). The extended range weather forecast provided for next two weeks over all the meteorological sub divisions of the state are below normal for both the weeks.

### **Vidarbha**

- With increase in maximum, minimum temperature and evaporative demand, organic mulching in fruit orchard basins, particularly in new/young plantation, is advisable to conserve moisture, maintain thermal regime and economize irrigation water.
- Schedule irrigations in summer crops/orchards in accordance with crop need and water availability. Provision of irrigation in the early morning or late evening is advised.
- Under the prevailing weather condition, summer crops (groundnut, sunflower, sesame, greengram etc.)/vegetables should be irrigated at 7 to 8 days interval, wherever irrigation facility is available.
- With assured irrigation facility, cultivation of summer vegetables like okra, bitter gourd, tinda, ridge gourd, smooth gourd, bottle gourd, cowpea, cluster bean, coriander etc. can be undertaken during this period.

### **Marathwada**

- Farmers are advised to irrigate the summer sunflower, which is 20 to 35 days old, as per the requirement. Intercultural operations are essential to minimize the competition with weeds.
- To control infestation of sucking pest in summer groundnut, spray Dimethoate 30 % @ 10 ml/ 10 liter of water.
- Due to unseasonal rainfall, creeper vegetable crops may get affected by powdery mildew and fruit dropping. Spray Carbendazim 10 gm or Copper Oxychloride 25 gm/10 litre of water and give mechanical support with the help of sticks in creeper vegetable crops.

### **Konkan**

- Due to increase in rate of evaporation, irrigate the groundnut crop at an interval of 10-20 days after sowing, wherever irrigation facilities are available.

- Weather condition is congenial for the incidence of hopper, aphids and thrips on vegetable crops viz., brinjal, tomato, cabbage, chilli, knol khol etc. If noticed, spray Malathion @ 20 ml or Dimethoate @ 12 ml/ 10 liter of water.
- Due to temperature variation, mango fruit drop may occur. Apply irrigation in alphonso mango orchards @ 150 to 200 litre of water at fortnightly interval to reduce fruit drop and increase the size of fruits.

## **Madhya Pradesh**

### **Rainfall situation**

Rainfall received over meteorological sub divisions of Madhya Pradesh during the period of 01 to 21 March are: West MP - 0.5 mm (82 % deficient) and East MP - 0.3 mm (96% deficient). The extended range weather forecast provided for next two weeks is no rainfall over both subdivisions during week-1 and below normal rainfall over both subdivisions during week-2.

- Farmers are advised to start preparing land for sowing of summer green gram and black gram with assured irrigation facility.
- Due to high day temperature that cause shrinking and shriveling of wheat grains, farmers are advised to irrigate the field of November sown wheat.

## **Odisha**

### **Rainfall situation**

The state has received 0.6 mm of rainfall during the period of 01 to 21 March (97 % deficit). The extended range weather forecast provided for next two weeks is below normal during week-1 and normal during week-2.

- Due to likely increase in temperature, efficient water management is essential. The following steps are advised to farmers:
  - ✓ Sprinkler irrigation brings down the heat effect.
  - ✓ Irrigate in alternate rows.
  - ✓ Adopt drip/sprinkler irrigation.
  - ✓ Mulching of leaves around newly planted cashew nut plants to conserve moisture is recommended along with irrigation of 20 to 25 litre/ plant.
- Flowering of summer groundnut has been started. Complete hoeing, weeding followed by earthing up without any delay. Do not disturb the soil to avoid disturbances during pegging. Apply 250 kg Gypsum or 200-300 kg of Calcium Sulphate/ha. If Sulphur is applied in form of SSP or Ammonium Sulphate, no need of Gypsum application. Calcium present in Gypsum help in more pod formation from the pegs and Sulphur helps in increasing the oil content.
- The high temperature increases the crop water requirement. Farmers are advised to irrigate all the field crops. Maize crop is at silking stage. Irrigate the crop depending upon the soil moisture content and never allow water stagnation in the field for more than 6 hours in the field. Top dress with 8 kg N/acre is recommended in maize.

## **Jharkhand**

### **Rainfall situation**

The state has received 0.2 mm rainfall during 01 to 21 March (98% deficit). The extended range weather forecast provided for next two weeks is: below Normal for week-1 and above normal for week-2.

- Farmers are advised to maintain the water level in transplanted summer rice and broadcast urea after 25-30 days of transplanting. To control weeds in the field, use cono-weeder after 20-25 days of transplanting.
- Wheat is at milk to grain filling stage. At this stage, moisture stress may affect the yield adversely. Hence, maintain the soil moisture of the field by irrigation during week-1.

## **Bihar**

### **Rainfall situation**

No rainfall was received over Bihar during the period of 01 to 21 March. The extended range weather forecast provided for next two weeks is below Normal for week-1 and above normal for week-2.

- In view of rainfall forecast, farmers are advised to take precaution in the harvesting and threshing of mustard crop during week-2.
- Mango growers are advised to spray Imidachloprid @ 1.0 ml per litre of water in the mango orchards against the infestation of mango hopper. To prevent fruit drop, application of Planofix @ 1.0 ml per 3 litres of water is advised. This will help to reduce fruit drop and also to increase the size of fruits.
- Weather condition remains favourable for sowing of green gram and black gram. Hence, sowing of green gram and black gram is advised. Application of 20 kg Nitrogen, 40 kg Phosphorus, 20kg Potash and 20 kg sulphur/ha is advised before sowing. *Pusa Vishal, Samrat, SML-668, HUM-16, Sona* varieties for green gram and *Type-6, Pant Urd-19 and Pant Urd-31, Uttra and Navin* varieties for black gram are recommended. Seed should be treated with Rhizobium culture. Ensure proper soil moisture at the time of sowing for optimum germination.

## **Rajasthan**

### **Rainfall Situation**

Rainfall received over West Rajasthan is 0.1 mm rainfall (17% Deficit) and East Rajasthan is 0.3 mm rainfall (17% Deficit) during the period of 01 to 21 March 2018. The extended range weather forecast provided for next two weeks (23 to 29 March and 30 March to 5 April) is no rainfall during week-1 and below normal rainfall during week-2 over both subdivisions.

- Farmers are advised for threshing of mustard and gram crops and keep the produce open for 1-2 days for sundry before storage during week-1, as no rainfall is forecasted.
- Farmers are recommended to harvest late sown wheat, which is at physiological maturity during week-1.



- Sowing of fodder maize (Variety – African Tall) is recommended, where irrigation facility is available.

## **Assam**

### **Rainfall Situation**

Assam has received 48.9 mm of rainfall during the period of 01 to 21 March 2018 (22% excess). The extended range weather forecast provided for next two weeks is below normal during week-1 and normal during week-2.

- Provide irrigation in furrows to saturate the surface soil of the nursery bed, as below normal rainfall is forecasted during week-1. Standing water to a depth of 2-3 cm should be maintained at least 2-3 days before uprooting.
- Farmers are advised to store harvested rapeseed and mustard seeds in cool, dark cupboards, away from the direct heat or sunlight.
- Spring season is a peak-breeding season of the honeybees. Honey farmers may collect colonies from the natural sources or from the bee-keepers. Indian bee (*Apis cerena indica*), a locally available domesticated species can be selected.
- Farmers are advised to continue their sowing operation of summer green gram and black gram in the coming 5 days. Inoculate the seeds with 150 g of Rhizobium culture/ 3-4 kg of seeds before sowing. For line sowing 3.0-3.6 kg of seeds per bigha is required. Maintain an optimum spacing of 30 cm between the rows and 10 cm between the plants.

## **Punjab**

### **Rainfall Situation**

The state has received 2.1 mm rainfall during 01 to 21 March 2018 over Punjab (88% deficit). The extended range weather forecast provided for next two weeks over Punjab is below normal for both the weeks.

- Monitor wheat and mustard fields for aphid infestation. If the population reaches ETL, spray Actara (Thiamethoxam 25 WG @ 20 g/acre in wheat and 40 g/acre in mustard) using 80-100 litres of water.
- Farmers are advised to irrigate wheat fields so that high temperature and water stress will not affect the yield of the crop adversely. However irrigation should be light.
- This is the optimum time for direct sowing of all the cucurbits, okra and cowpea. Nursery of tomato, brinjal and chilli can be transplanted.
- This is the optimum time to plant evergreen fruit plants such as citrus, guava, ber, loquat, mango, litchi, sapota, papaya etc.

## **Himachal Pradesh**

### **Rainfall Situation**

Rainfall received during the period of 01 to 21 March 2018 over Himachal Pradesh is 19.9 mm (74% deficit). The extended range weather forecast provided for next two weeks over Himachal Pradesh is: below normal for both the weeks.

- The incidence of blight may occur in potato and tomato. Constant field monitoring is advised. If symptoms appears, then spray Carbendazim @1.0 g / litre of water or Dithane-M-45 @ 2.0g / litre of water.

## **Jammu and kashmir**

### **Rainfall Situation**

Rainfall received during the period of 01 to 14 March 2018 over Jammu and Kashmir is 53.3 mm (49% deficit). The extended range weather forecast provided for next two weeks over Jammu and Kashmir is below normal for both weeks.

- Farmers are advised to monitor the wheat fields for yellow rust infestation. If noticed, apply Propiconazole (Tilt) @ 25ml/ 25 litres of water.
- To control collar rot and root rot in gram, rogue out the severely infected plants and drench affected areas with Thiram @ 0.2% or carbendazim @ 0.1%.
- In citrus crops, farmers are advised to spray copper oxychloride @ 3g/litre of water for protection against dieback, gummosis and anthracnose.

*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 forecasts. In no event will India Meteorological Department (IMD) and Indian Council of Agricultural Research (ICAR) 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 on this bulletin.*