



# **National Agromet Advisory Services Bulletin**

**Date of issue: 06 May 2023**

based on

**Extended Range Weather Forecast (ERFS)**

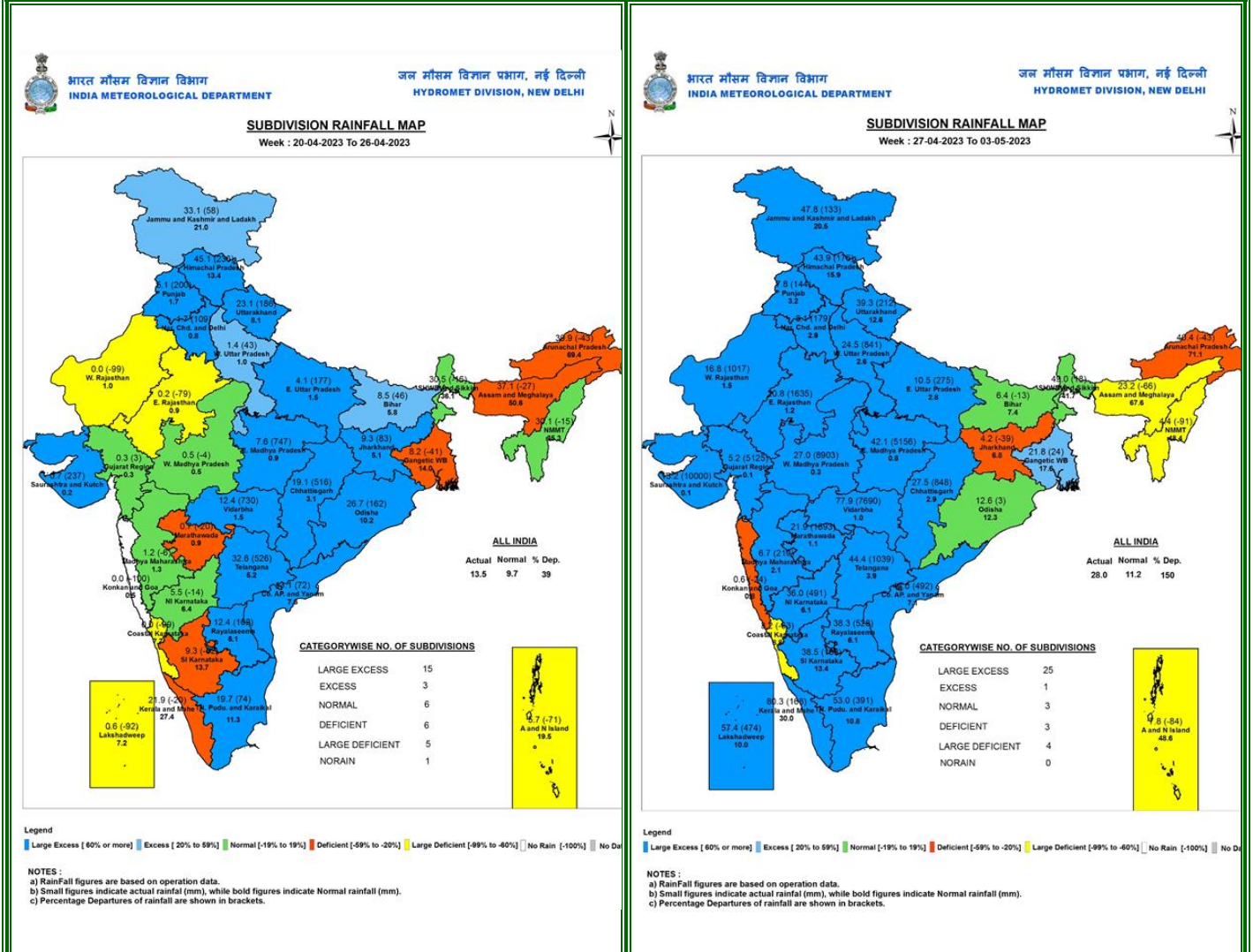
**Validity: 05 - 18 May 2023**

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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)

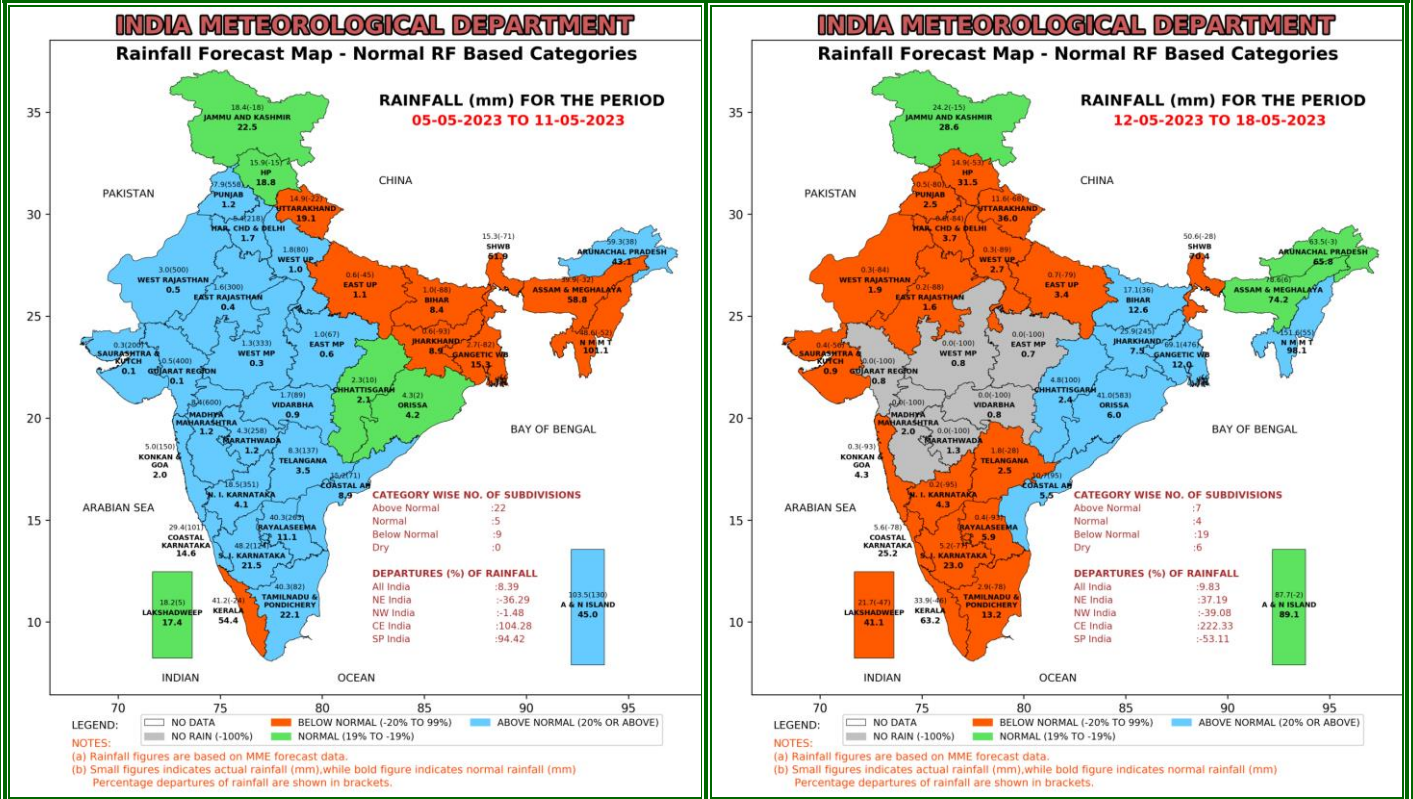
### Realized Rainfall (20<sup>th</sup> April to 03<sup>rd</sup> May 2023)



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

## Extended Range Forecast System

### Rainfall forecast maps for the next 2 weeks (IC- 3<sup>rd</sup> May) (05<sup>th</sup> to 18<sup>th</sup> May 2023)



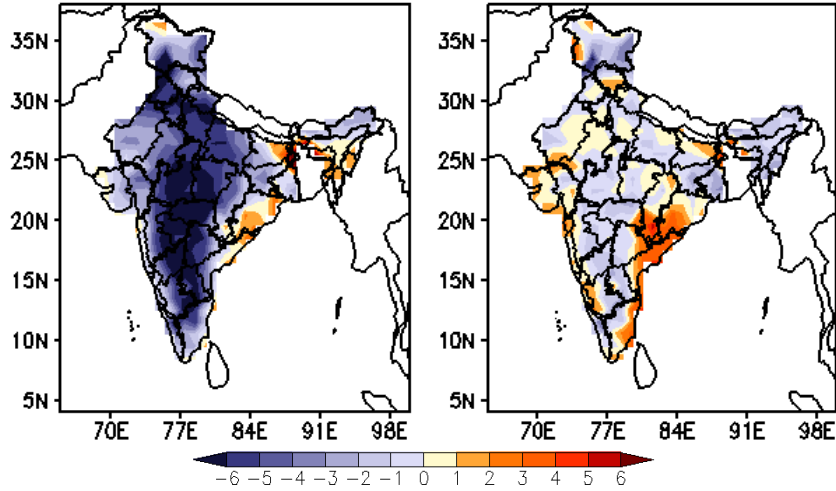
- **Week 1 (05.05.2023 to 11.05.2023):** Rainfall activity associated with Western Disturbance is likely over northeast India and parts of north India. Rainfall is likely to be above normal over southern Peninsula.
- **Week 2 (12.05.2023 to 18.05.2023):** Rainfall activity associated with Western Disturbance is likely over northwest India. Increased rainfall activity is likely over eastern coastal areas and northeast India.

**Maximum and Minimum temperature anomaly ( $^{\circ}\text{C}$ ) forecast  
for the next 2 weeks (IC- 03<sup>rd</sup> May)  
(05<sup>th</sup> April to 18<sup>th</sup> May 2023)**

**MME forecast Tmax anomaly (Deg C)**

(Week1: 05May-11May)

(Week2: 12May-18May)



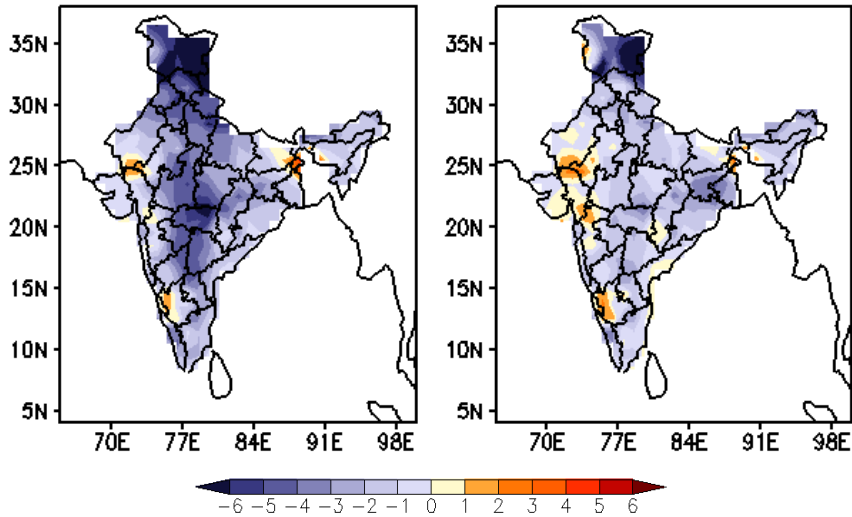
**Maximum Temperature (Tmax)**

- **Week 1 (05.05.2023 to 11.05.2023):** Tmax is likely to be below normal over the country except some parts of Odisha, Coastal Andhra Pradesh and northeastern states.
- **Week 2 (12.05.2023 to 18.05.2023):** Tmax is likely to be normal over the country except eastern coastal region as well as Gujarat and adjoining western coastal region.

**MME forecast Tmin anomaly (Deg C)**

(Week1: 05May-11May)

(Week2: 12May-18May)



**Minimum Temperature (Tmin)**

- **Week 1 (05.05.2023 to 11.05.2023):** Tmin is likely to be below normal over most parts of country.
- **Week 2 (12.05.2023 to 18.05.2023):** Tmin is likely to be slightly below normal over most parts of country.

## Strategic Agricultural Planning based on rainfall till 18 May 2023

### Agromet Advisories

#### Uttar Pradesh

The amount of rainfall received over East Uttar Pradesh was 49 mm (206% large excess) and over West Uttar Pradesh was 74 mm (306% large excess) during 01 March - 04 May 2023. The extended range weather forecast (rainfall) for the next two weeks (05 -11 May 2023 and 12 - 18 May 2023) is below normal over East Uttar Pradesh and above normal for week-1 and; below normal over East Uttar Pradesh and West Uttar Pradesh for week-2.

#### *Western Uttar Pradesh*

- As light to moderate rainfall is forecasted during week-1, farmers are advised to sun dry the harvested wheat crop and do the threshing as early as possible; store the produce in a safer place.
- Farmers are advised to drain out excess water and withhold irrigation in *zaid* maize, which is at silking stage., Weeding and top dressing should also be done at optimum soil moisture.
- Due to the rainfall received during last week, farmers are advised to withhold irrigation in *zaid* urd and moong crops (vegetative stage). Drain out excess water and weeding is also advised and weeds should be used as a mulch.
- To control shoot and fruit borer in brinjal, which at flowering stage, farmers are advised to spray Azadirachtin 1.0 % EC (1000ppm).

#### *Eastern Uttar Pradesh*

- Due to rainfall occurred during last week and forecast of rainfall during next two weeks, it is advised not to provide irrigation in black/green gram (vegetative stage) and in sugarcane (which is at emergence stage).
- To protect the vegetables (tomato/chilli/ladyfinger) from cut worms, it is advised to spray Profenofos @ 0.5ml/litre of water, sprayed 10 cm away from the root zone at 15 days intervals.
- For protection against infectious Brusel disease (Gumboro), vaccinate 12-14 days old poultry birds. Vaccinate the 1-month-old ducklings with cholera vaccine in order to immunize them against avian cholera.

#### Haryana

69 mm (160% large excess) rainfall was received over Haryana during 01 March - 04 May 2023. The extended range weather forecast (rainfall) provided for the next two weeks (05 -11 May 2023 and 12 - 18 May 2023) over Haryana is above normal for week-1 and; below normal for week-2.

- Due to possibility of rainfall during next two weeks, farmers are advised to harvest and thresh the matured wheat and barley crops.
- Farmers are advised to prepare the field and procure the recommended *desi* cotton crop with certified seeds of *HD 123*, *HD 324* and *HD 432*.

### **Uttarakhand**

169 mm (67% large excess) rainfall was received over Uttarakhand during 01 March - 04 May 2023. The extended range weather forecast (rainfall) provided for the next two weeks (05 -11 May 2023 and 12 - 18 May 2023) over Uttarakhand is below normal for week-1 and; week-2.

- Due to excess rainfall received during last few days, farmers are advised to sow the summer crops. If there is excessive soil moisture in the field, then sowing should be done after 2-3 days.
- Under prevailing weather condition, farmers are advised spray 100 g Carbendazim or 600 g Mancozeb in 200 litres of water after hail events in hail affected orchards.
- As the recent rains led to increase in moisture content, to harvest the wheat, farmers are advised to wait at least 24 hours after rain, when the grain moisture is around 19-20% .

### **Himachal Pradesh**

206 mm (9% excess) rainfall received over Himachal Pradesh during 01 March - 04 May 2023. The extended range weather forecast (rainfall) provided for the next two weeks (05 -11 May 2023 and 12 - 18 May 2023) over Himachal Pradesh is normal for week-1 and below normal for week-2.

- Due to snowfall in high hills and unseasonal rainfall with hailing in all over the state, farmers are advised to harvest wheat crop only when the weather becomes clear.
- Under prevailing weather condition, proper drainage should be ensured in potato and onion fields as well as in fields where other vegetable crops have been sown / planted.
- Tranplanting of vegetables like chillies, tomato and brinjal from nursery to main field is advised in lower and mid hills. Varieties recommended for chilies: *Surjamukhi*, for tomato: *Palam Pink*, *Palam Pride*, *Hybrid 7711*, *Rakshitae* and *Palam Tomato* and for brinjal: *Arka Nidhi*, *Arka Keshav* and *Hissar Shymal*.
- Farmers are advised to pluck the tea leaves (two leaf and a bud) at 8-10 days interval to maintain the quality and productivity.

## **Chhattisgarh**

97 mm (328% large excess) rainfall received over Chhattisgarh during 01 March - 04 May 2023. The extended range weather forecast (rainfall) provided for the next two weeks (05 -11 May 2023 and 12 - 18 May 2023) over Chhattisgarh is normal for week-1 and; above normal for week-2.

- In view of the possibility of light rains during next two week and due to untimely rains at isolated places in few districts of Chhattisgarh, farmers are advised to start harvesting the crops carefully and if the crop has been harvested, keep it in a safe place and make proper arrangements for drainage.
- Inter-cultural operations, fertilizer application, earthing followed by irrigation are advised in sugarcane at knee height stage.
- Looking into increasing temperature, farmers are advised to keep their animals in shade and provide regular water to them.
- Due to possibility of light rainfall in the next two weeks, there is a chance of aphid outbreak in summer vegetable crops. Farmers are advised to keep a constant watch and spray neem-based insecticides on observation of the initial outbreak.

## **Odisha**

137 mm (114% large excess) rainfall received over Odisha during 01 March - 04 May 2023. The extended range weather forecast (rainfall) provided for the next two weeks (05 -11 May 2023 and 12 - 18 May 2023) over Odisha is normal for week-1 and; above normal for week-2.

- To avoid the damage due to thunderstorm and rain in cucurbitaceous vegetables, it is advised to pluck all the harvestable fruit from the vine and strengthen the vine by staking to avoid the physical damage.
- Prolonged dry spell followed by rain may increase the infestation of fall army worm in maize. Spray Chlorantraniliprole 18.5 % SC@ 4 ml/ 10litre of water or Emamectin Benzoate 5 % SG @ 4g/10 litre of water.
- To manage black headed caterpillar in coconut, it is advised to install Bracon card in the front of the plant. Cut the affected leaves and burn it. Spray Monocrotophos 36 % SL @5ml/tree on canopy of tree.

## **Jammu**

The amount of rainfall received over Jammu was 207 mm (-21% deficit) during 01 March - 04 May 2023. The extended range weather forecast (rainfall) provided for the next two weeks (05 - 11 May 2023 and 12 - 18 May 2023) over Jammu is normal for week-1 and; week-2.

- Sowing of Mash (var.) *Pant U-19, Uttara* and Moong (var.) *PDM-54, ML-131, ML 818, PS-16, PS-7* after receipt of rain in fallow fields.
- Sowing of summer fodder (maize+cowpea+charri) and bajra is recommended after receipt of rain.

- Due to chances of light rain during next two weeks, it is advised to postpone the harvesting and threshing of wheat (early and normal sown) and mustard crops; shift the threshed crop to safer places.
- Due to chances of light rainfall, it is advised that do not allow livestock especially sheep and goats to graze in rain as it will enhance soil intake along with grass and may lead to urinary Calculi/Urolithiasis.
- Reduce the entrance of boxes to protect the colonies from rainfall. It is the right time to start bee keeping especially for beginners as pollen and nectar are in plenty and bee activity is at its peak. Migrate bee colonies near floral resources. Prepare colonies for honey flow.

### **Punjab**

The amount of rainfall received over Punjab was 90 mm (128% large excess) during 01 March - 04 May 2023. The extended range weather forecast (rainfall) provided for the next two weeks (05 -11 May 2023 and 12 - 18 May 2023) over Punjab is above normal for week-1 and; below normal for week-2.

- As there are chances of rainfall during the coming week, farmers are advised to finish the harvesting and threshing of *rabi* crops as early as possible and keep the final produce at a safer place.
- Farmers are advised to prepare field for *kharif* season and to save water and for ease in management of paddy straw, prefer PAU recommended short duration rice varieties are *PR-126*, *PR-127*, *PR-130* and *HKR-47*.
- Harvest the cucurbits and other vegetables like tomato, chilli, brinjal and okra at regular intervals to get maximum yield. Irrigate crops regularly at the interval of 4-5 days to avoid water stress.
- Due to rise in temperature, fruit drop is increasing. Farmers are advised to continuously keep the soil moist in peach and plum orchards. In citrus, pear, litchi and mango apply light and frequent irrigations.
- In citrus orchard, mulching with paddy straw (10 cm thick layer) is advised after application of second split of inorganic fertilizers.

### **Tamil Nadu**

The amount of rainfall received over Tamil Nadu was 132 mm (97% large excess) during 01 March - 04 May 2023. The extended range weather forecast (rainfall) for the next two weeks (05 -11 May 2023 and 12 - 18 May 2023) is above normal for week-1 and; below normal for week-2.



- Since moderate to heavy rainfall is anticipated during week-1, sowing of pulses may be postponed.
- Due to moderate rainfall in past week and forecast of rainfall during next two weeks, there may be a chance of nematode infestation in cotton crop, which is at flowering stage. Hence, to avoid the widespread of the infestation, remove the infected plants from the field. Furthermore, drenching with Bavistin @ 200g/acre or any nematicide is recommended.
- Since the maximum temperature is increasing, it is advised to ensure clean cool drinking water to the animals at all time. Vitamins and electrolytes can be mixed with water. Quality green fodder should be provided to prevent the production loss.

### **Kerala**

154 mm (-2% deficit) received over Kerala during 01 March - 04 May 2023. The extended range weather forecast (rainfall) for the next two weeks (05 -11 May 2023 and 12 - 18 May 2023) is below normal for week-1 and; week-2.

- Under prevailing weather condition, there is a chance of rice bug infestation in paddy. To control, it is advised to spray 2 ml Malathion per one litre of water. Pesticides application should be done either before 9 am or after 3 pm.
- On receipt of pre-monsoon showers, prepare beds for turmeric planting of size 3 m x 1.2 m with a spacing of 40 cm between beds in already tilled land. Whole or split mother rhizomes are to be used for planting. Mulch the crop immediately after planting.
- Due to increase in relative humidity, leaf rust disease may become severe in coffee. To prevent, it is advised to apply 0.5% Bordeaux mixture or plant wax 20 EC @1-2 ml per litre to control the disease.
- During the beginning of southwest monsoon season, one-kilogram lime is advised to apply per one matured palm by opening the coconut basin.

### **Maharashtra**

20.4 mm (90% large excess) rainfall over Madhya Maharashtra; 38.4 mm (195% large excess) in Marathwada; 9 mm (90% large excess) in Konkan region and 121 mm (573% large excess) over Vidarbha was recorded during 01 March - 04 May 2023. The extended range weather forecast (rainfall) for the next two weeks (05 -11 May 2023 and 12 - 18 May 2023) is above normal over Konkan, Marathwada, Madhya Maharashtra and Vidarbha for week -1 and; below normal over Konkan and no rainfall over Madhya Maharashtra, Marathwada and Vidarbha for week -2, respectively.

#### *Vidarbha*

- Due to thunderstorms with lighting, gusty wind and hail, heavy rainfall at few places and light to moderate rainfall at most places occurred over Vidarbha region, farmers are advised

to keep farm animals under shade. Avoid grazing farm animals at open places, make availability of feed, fodder in shade.

- Harvesting of marketable fruits and vegetables is advised to avoid damage due to rain, storm and hail.
- In summer groundnut, which is at kernel development stage, need based irrigation is advised to provide depending upon soil moisture condition and local weather during week-2. Avoid over irrigation/water stagnation to prevent the incidence of root rot.
- For the control of tikka disease in groundnut, it is advised to spray Chlorothalonil 75% WP @ 20g or Propiconazole 25% EC @ 10 ml or Tebuconazole 25.9% EC @ 10 ml per 10 litres of water.

#### *Marathwada*

- Due to continuous rain and hail at isolated places, there is a more possibility of increase in disease in grape orchard, To manage, it is advised to spray 1% Bordeaux mixture in grape orchard where april pruning is completed for management of disease in grape orchard.
- Due to thunderstorm, gusty wind and light to moderate rainfall during last week and forecast of rainfall at isolated places during next week-1, turmeric crop should not be stored in open place. Store the harvested crop at safe places (Warehouse).
- As per forecast of isolated thunderstorm along with rainfall and hail at isolated places, it is advised to provide mechanical support to the newly planted banana plants. Harvesting of mature banana fruits should is also advised as early as possible.
- Harvesting of matured mango fruits is advised as early as possible and store the harvested fruits at safe places. As isolated thunderstorm along with rainfall and hail at isolated places is forecasted, mechanical support is advised in newly planted mango orchards.

#### *Madhya Maharashtra*

- Farmers are advised for soil moisture conservation operations in field like leveling, bunding etc after *rabi* crop harvesting.
- Do not burn the organic residues or trash left in the field after harvest of *rabi* crops. It can be used for preparation of organic manure.
- For the control of Fall Armyworm in maize (dough stage), it is advised to use Tricho-cards @ 5 numbers per ha. If outbreak is more, then spraying of Emamectin benzoate 4 % SG @5g or Chlorantraniliprole 18.5 % SC @4ml per 10 lit of water is recommended .

- Apply Bordo mixture paste upto 1 meter height from soil level to avoid trunk cracking in mango.

#### *Konkan*

- Due to forecast for above normal rainfall during next week-1, it is advised to harvest the matured rice varieties by observing rainfall and after threshing, keep harvested produce in protective place for drying. threshed grains should be sun dry for 2 to 3 days before storage..
- Harvest the matured mango fruits before 10 am in the morning and after 4 pm in the evening at 80 to 85% maturity. Keep the harvested fruits in shade to prevent spongy tissue disease and from heat.
- There is possibility for incidence of fruit fly on mango. Collect and destroy all fallen fruits due to gusty winds and install “Rakshak fruit fly trap” developed by university @ 2 traps per acre..

#### **Anantapur**

95 mm (179% large excess) rainfall received over Rayalaseema and 146 mm (236% large excess) rainfall received over Coastal Andhra Pradesh during 01 March - 04 May 2023. The extended range weather forecast (rainfall) provided for the next two weeks (05 -11 May 2023 and 12 - 18 May 2023) is above normal over Rayalaseema and Coastal Andhra Pradesh for week-1 and; above normal over Coastal Andhra Pradesh and below normal over Rayalaseema for week-2.

- Prevailing weather conditions are congenial for the incidence of black thrips and white flies in chillies (flowering stage). Framers are advised to install 30-35 blue and yellow colored sticky traps per acre to capture these insects and reduce their population in the field.
- In Kurnool, Chittoor, Vizianagaram, West Godavari, Krishna, Guntur, Ananthapuramu and Kadapa districts, present weather conditions are favorable for fruit borer incidence in mango (fruit development stage). To control fruit borer, spraying of Chlorpyrifos @ 2.5ml+Dichlorvos @ 1.5 ml/litre of water @ 15 days interval is recommended.
- Due to gusty winds accompanied with rain in last week, it is advised to removing excess moisture from fields through drainage channels and spraying of Carbendazim @ 1g per litre of water in the crops at maturity stage to reduce the disease incidence.

#### **Gujarat**

18 mm (1277% large excess) rainfall received over Gujarat during 01 March - 04 May 2023. The extended range weather forecast (rainfall) provided for the next two weeks (05 -11 May 2023 and 12 - 18 May 2023) over Gujarat is above normal for week-1 and; no rainfall for week-2.

- For prevention of downy mildew disease in vegetables due to unseasonal rainfall/humid condition, it is advised to spray Mancozeb 75 % WP 27 g in 10 liters of water.

- Pruning is advised in drumstick from 30 cm to 45 cm of top branches after completion of harvesting of drumstick in May-June month. Prune drumstick trees (2 m height) to maintain height, for easy harvesting and other farming activities.
- For control of whitefly and thrips in vegetables, spray Neem seed extract 5% or 40 ml Neem oil with Diafenthiuron 15 g or Profenofos 20 ml/10 litres of water.

### **Karnataka**

64.3 mm (-1% deficit) rainfall received over South Interior Karnataka, 7 mm (-85 large deficit) over Coastal Karnataka and 62 mm (75% large excess) rainfall received over North Interior Karnataka during 01 March - 04 May 2023. The extended range weather forecast (rainfall) provided for the next two weeks (05 -11 May 2023 and 12 - 18 May 2023) is above normal over South Interior Karnataka, North Interior Karnataka and Coastal Karnataka for week-1 and; below normal over over Coastal Karnataka, South Interior Karnataka and North Interior Karnataka for week-2.

#### *South Interior Karnataka*

- Leaf hopper and Powdery mildew disease incidence is more severe before flowering and immediately after fruit formation. Spraying of Carbaryl, 50WP @4g/litre of water or Imidacloprid @ 0.3ml/ litre of water for management of leaf hopper is recommended.
- Periodically water spray is advised during peak hot hours to lowers the temperature and consequently reduces the heat load on animals.

#### *North Interior Karnataka*

- Considering the forecast of rainfall during next two weeks, farmers are advised to harvest matured wheat, groundnut and sunflower under clear weather condition with necessary precautionary measures.
- Under prevailing weather condition, it is advised to apply 4-6 inch thick hay thatch as a roofing material. Water can be used for spraying the floor and roof of shelter periodically during peak hot hours which lowers the temperature and consequently reduces the heat load on animals.

### **West Bengal**

105 mm (16% excess) rainfall received over Gangetic West Bengal and rainfall received over Sub Himalayan West Bengal was 240 mm (14% excess) during 01 March - 04 May 2023. The extended range weather forecast (rainfall) for the next two weeks (05 -11 May 2023 and 12 - 18 May 2023) is below normal over Gangetic West Bengal and Sub-Himalayan West Bengal during week-1 and; above normal over Gangetic West Bengal and below normal over Sub-Himalayan West Bengal for week-2.

- Under prevailing weather condition, famers are advised to harvest maize and *boro* rice as soon as possible.
- To prevent fruit fly attacks in mango orchard, it is advised to install methyl eugenol traps.

- To save the cattles from ectoparasite infestation it is advised to keep the cattle shed clean. Neem oil application can be done inside the shed.

***Disclaimer:***

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