



राष्ट्रीय कृषि मौसम परामर्शी सेवाएं बुलेटिन National Agromet Advisory Services Bulletin

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विस्तारित अवधि मौसम पूर्वानुमान/Extended Range Weather Forecast (ERFS)

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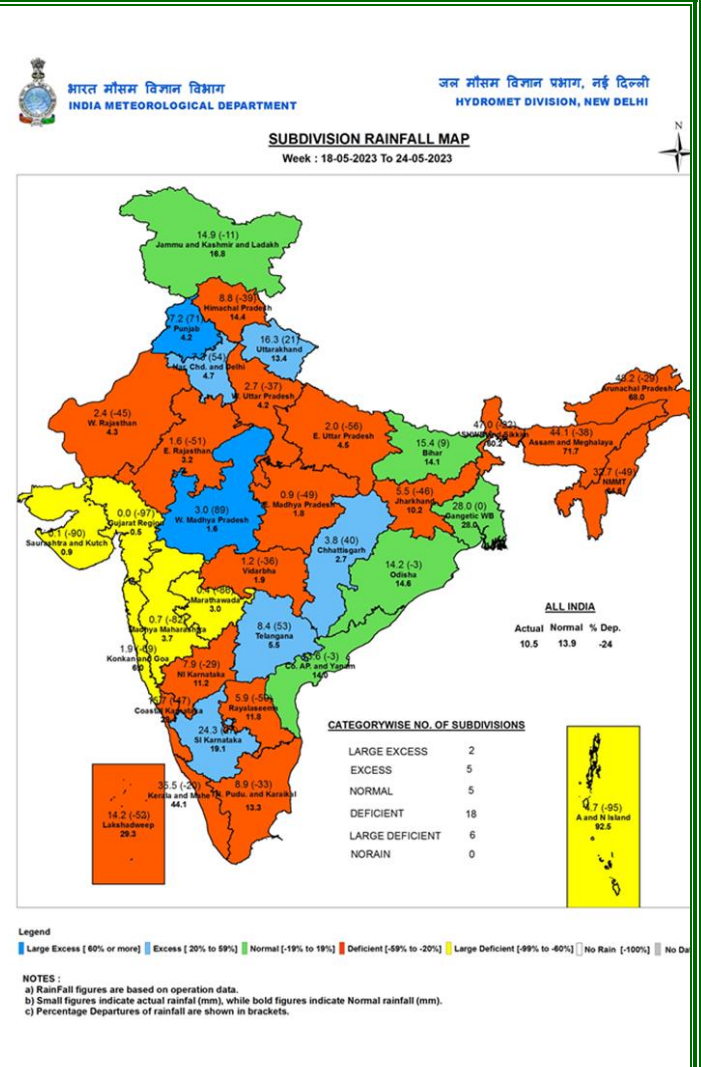
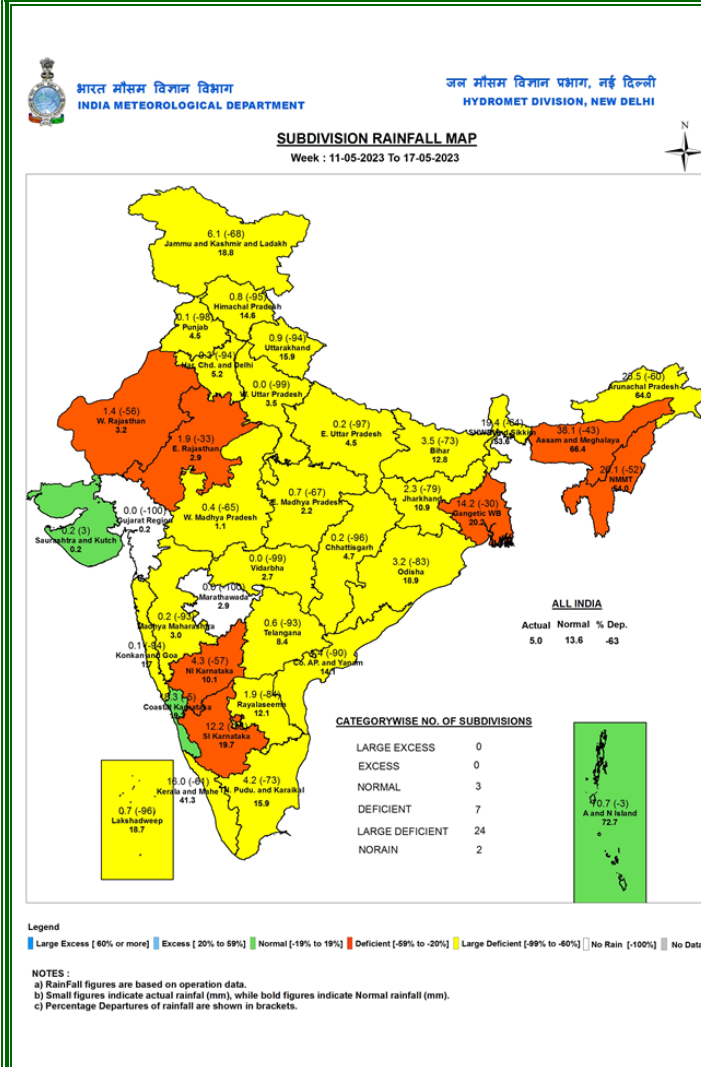
India Meteorological Department (IMD)

पृथ्वी प्रणाली विज्ञान संगठन

Earth System Science Organization

Realized Rainfall and Extended Range Forecast (Rainfall and Temperature)

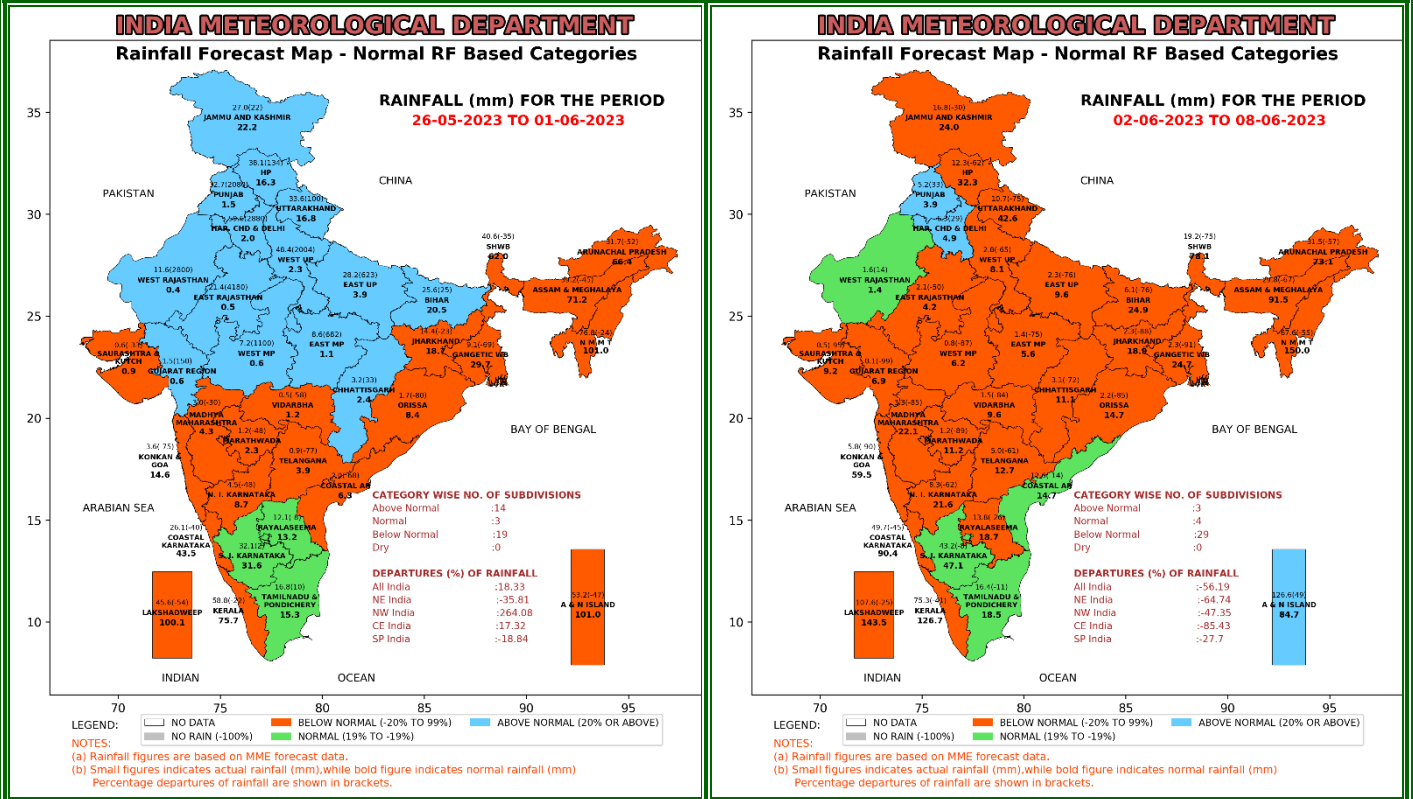
Realized Rainfall (11th May to 24th May, 2023)



- Normal or above normal rainfall occurred in either of the two weeks over Jammu & Kashmir and Ladakh (UTs), Uttarakhand, Punjab, Haryana Chandigarh & Delhi, Bihar, Gangetic West Bengal, Saurashtra & Kutch, West Madhya Pradesh, Chhattisgarh, Odisha, Coastal Andhra Pradesh & Yanam, Telangana, Coastal Karnataka, South Interior Karnataka and Andaman & Nicobar Islands.
- Below Normal rainfall/no rain occurred in both the weeks over rest of States and UTs.

Extended Range Forecast System

Rainfall forecast maps for the next 2 weeks (IC- 24th May) (26th May to 08th June 2023)



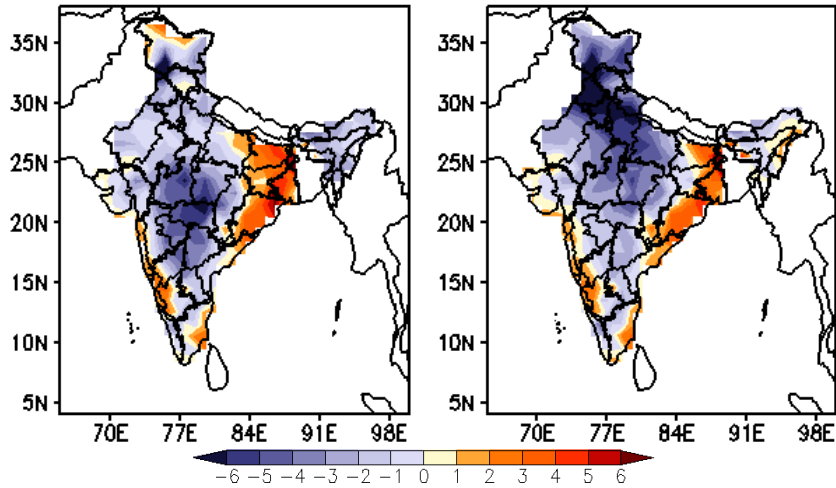
- **Week 1 (26.05.2023 to 01.06.2023):** Rainfall activity associated with Western Disturbance is likely over north India. Rainfall activity is also likely over northeast India.
- **Week 2 (02.06.2023 to 08.06.2023):** Rainfall activity is likely over west coast of southern peninsula.

**Maximum and Minimum temperature anomaly ($^{\circ}\text{C}$) forecast
for the next 2 weeks (IC- 17th May)
(19th May to 01st June 2023)**

MME forecast Tmax anomaly (Deg C)

(Week1: 19May–25May)

(Week2: 26May–01Jun)



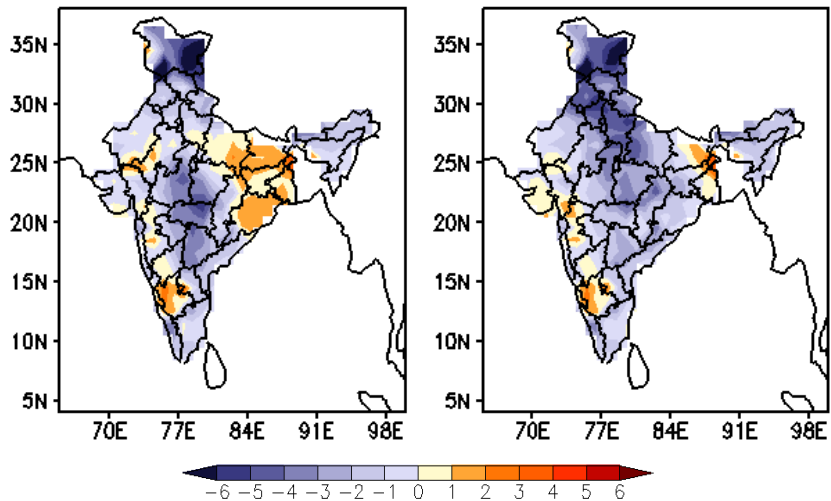
Maximum Temperature (Tmax)

- **Week 1 (19.05.2023 to 25.05.2023) and Week 2 (26.05.2023 to 01.06.2023):** Tmax is likely to be below normal over central and adjoining northwest India. It is likely to be above normal over Bihar, Jharkhand, Odisha, Gangetic West Bengal and parts of Uttar Pradesh, Coastal Andhra Pradesh and coastal Tamil Nadu.

MME forecast Tmin anomaly (Deg C)

(Week1: 19May–25May)

(Week2: 26May–01Jun)



Minimum Temperature (Tmin)

- **Week 1 (19.05.2023 to 25.05.2023):** Tmin is likely to be below normal over many parts of country and above normal over Uttar Pradesh, Odisha, Jharkhand, Bihar, West Bengal and Karnataka.
- **Week 2 (26.05.2023 to 01.06.2023):** Tmin is likely to be below normal over most parts of country.

Agromet Advisories

Uttar Pradesh

The amount of rainfall received over East Uttar Pradesh was 53 mm (88% large excess) and over West Uttar Pradesh was 78 mm (170% large excess) during 01 March - 25 May 2023. The extended range weather forecast (rainfall) for the next two weeks (26 May - 01 June 2023 and 02 - 08 June 2023) is above normal over East Uttar Pradesh and West Uttar Pradesh for week-1 and; below normal over East Uttar Pradesh and West Uttar Pradesh for week-2.

Western Uttar Pradesh

- As per the forecast of above normal rainfall in next week-1, farmers are advised to skip irrigation in *zaid* maize, which is at silking stage. Weeding and top dressing should also be done at proper soil moisture.
- Due to the forecast of rainfall during next week-1, farmers are advised to skip irrigation and weeding should be done and use weeds used as a mulch.
- For the management of food borer in brinjal crop at flowering/fruitings stage, farmers are advised to spray Azadirachtin 1.0% EC (1000ppm).
- Broadcast of Phorate 10% CG 10 kg/ha insecticide for protection of stem borer in *zaid* maize at silking stage.

Eastern Uttar Pradesh

- Due to forecast of rainfall during next week-1, farmers are advised to skip irrigation in *zaid* maize (milking stage). Weeding and top dressing should be done at proper moisture condition.
- For the management of food borer in brinjal crop at flowering/fruitings stage, farmers are advised to spray Azadirachtin 1.0% EC (1000ppm).
- To protect the vegetables (tomato/chilli/okra) 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.

Uttarakhand

203 mm (40% excess) rainfall was received over Uttarakhand during 01 March - 25 May 2023. The extended range weather forecast (rainfall) provided for the next two weeks (26 May - 01 June 2023 and 02 - 08 June 2023) over Uttarakhand is above normal for week-1 and; below normal for week-2.

- Due to forecast of rainfall during next week-1, farmers are advised to use anti-hail net over fruit plants to protect fruits from hail and postpone irrigation and use of pesticides
- Farmers are advised to provide support to vegetable plants for protection against strong wind
- Under prevailing weather condition, it is advised to harvest the onion crop and keep the harvested crops at safer places.

Himachal Pradesh

255 mm (11% excess) rainfall received over Himachal Pradesh during 01 March - 25 May 2023. The extended range weather forecast (rainfall) provided for the next two weeks (26 May - 01 June 2023 and 02 - 08 June 2023) over Himachal Pradesh is above normal for week-1 and below normal for week-2.

- Due to snowfall in the upper reaches of Chamba, Lahaul & Spiti, Kinnaur and Kullu and rainfall / hailstorms with gusty winds all over the state, just sown maize crop washed out with soil, pea crop in Lahaul and Spiti adversely affected. Therefore, farmers are advised to take re-sowing of maize and pea crops.
- The current spell of expected rains might interfere with the harvesting/threshing of wheat crops in upper areas of the state. The farmers are advised to must take the weather forecast into account while resuming the harvesting/threshing of matured crops.
- Sowing of maize as a grain crop as well as a fodder crop is advised in the irrigated areas. For improving the quality of green fodder farmers may intercrop cowpea or soybean in maize.
- Farmers are advised to pluck the tea leaves (two leaf and a bud) at 8-10 days interval to maintain the quality and productivity.

Punjab

The amount of rainfall received over Punjab was 108 mm (111% large excess) during 01 March - 25 May 2023. The extended range weather forecast (rainfall) provided for the next two weeks (26 May - 01 June 2023 and 02 - 08 June 2023) over Punjab is above normal for week-1 and; week-2.

- As rainfall is expected in during next two weeks, farmers are advised to start sowing of nursery of recommended varieties of rice i.e. *PR 121, PR 122, PR 126, PR 127, PR 128, PR 129, PR 130, PR 131, PR 113, PR 114* and *HKR 47* during the period.
- Eradicate the weeds like kanghibuti, peelibuti, puthkandaetc growing on cotton field bunds, waste lands, road side and irrigation channels/canals to avoid further spread of whitefly to cotton field.

- 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.
- Paddy straw mulching (10 cm thick layer) in guava orchards can be done in this month to suppress weeds and to conserve soil moisture.

Jammu

The amount of rainfall received over Jammu was 262 mm (-17% deficit) during 01 March - 25 May 2023. The extended range weather forecast (rainfall) provided for the next two weeks (26 May - 01 June 2023 and 02 - 08 June 2023) over Jammu is above normal for week-1 and; below normal for week-2.

- Due to the chance of light rainfall during next week-1, farmers may go for nursery sowing of early transplanted rice varieties. (var. *IET-1410*, *K-39*, *Ratna*, *PC-19*, *Jaya*). Treat seed with Carbendazim or Bavistin @ 2g/kg before nursery raising.
- Due to chances of gusty winds, proper staking of cucurbit vines (bitter gourd, bottle gourd, squash gourd, pumpkin etc.) is recommended and also provide support to the young plants.
- To control mango hopper, farmers may spray Imidacloprid @ 0.3ml/litre water or Lambda-cyhalothrin 05 % EC @ 1ml per liter of water during clear weather.

Rajasthan

The amount of rainfall received over Rajasthan was 61 mm (245% large excess) during 01 March - 25 May 2023. The extended range weather forecast (rainfall) provided for the next two weeks (26 May - 01 June 2023 and 02 - 08 June 2023) over Rajasthan is above normal for week-1 and; below normal for week-2.

- Present weather condition is suitable for the increasing outbreak of downy mildew disease in cucurbitaceous crops. If symptoms appear, farmers are advised to spray Mancozeb @ 2g/litre of water.
- Under prevailing weather condition, timely sowing of cotton is advised. Recommended varieties are: *Ankur-3224* (BG II) and *PCH-9605*.
- To check the infestation of root-knot nematode, solarization of nursery beds for 2-3 weeks in May-June before raising seedlings of tomato is advised.

Assam

315 mm (-38% deficit) rainfall was received over Assam during 01 March - 25 May 2023. The extended range weather forecast (rainfall) provided for the next two weeks (26 May - 01 June 2023 and 02 - 08 June 2023) over Assam is below normal for week-1 and; week-2.

- Taking into account the amount of rainfall received during the past week, it is advised to avoid waterlogging in jute fields. Remove excess water from the field immediately by creating field ditches of 20 cm wide and 20 cm depth, along the gradient, at an interval of 10 m.
- Interested farmers may select well-drained medium loam soil for ginger cultivation, and complete planting of recommended varieties viz. *Rio-de-Genheiro*, *Nadia*, *Karkai*, *Bardwan*, *Moran*, *Jorhat* and *China* within this week.
- For protection against infectious Brusal 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.

Jharkhand

The amount of rainfall received over Jharkhand was 80 mm (16% excess) during 01 March - 25 May 2023. The extended range weather forecast (rainfall) provided for the next two weeks (26 May - 01 June 2023 and 02 - 08 June 2023) over Jharkhand is below normal for week-1 and; week-2.

- Under prevailing weather conditions, farmers are advised to harvest the summer rice and keep at safer place.
- Farmers who wish to prepare papaya seedlings, may sow the seeds in polythene bags filled with soil and well-rotted cow dung manure. After seeding irrigate them as per requirement.
- As per the forecast of an increase in day temperature, farmers are advised to cover the soil with natural/straw mulch and advised to strengthen the field bund to conserve present soil moisture.
- Vaccination is advised for all dairy animals against black quarter and Hemorrhagic septicemia diseases. It is also advised to increase the amount of proteinaceous and calcium feed.

West Bengal

154 mm (-2% deficit) rainfall received over Gangetic West Bengal and rainfall received over Sub Himalayan West Bengal was 330 mm (-11% deficit) during 01 March - 25 May 2023. The extended range weather forecast (rainfall) for the next two weeks (26 May - 01 June 2023 and 02 - 08 June 2023) is below normal over Gangetic West Bengal and Sub-Himalayan West Bengal during week-1 and; week-2.

- Labeling and power tiller operation is advised in the fields after boro rice harvesting for Jute sowing.
- To prevent fruit fly attacks in mango orchard, it is advised to install methyl eugenol traps.

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

Chhattisgarh

106 mm (221% large excess) rainfall was received over Chhattisgarh during 01 March - 25 May 2023. The extended range weather forecast (rainfall) provided for the next two weeks (26 May - 01 June 2023 and 02 - 08 June 2023) over Chhattisgarh is above normal for week-1 and; below normal for week-2.

- Keeping in view the possibility of light to moderate cloudy sky and light rain in next week-1, farmers are advised to keep the harvested oil seed crops like sesamum in safe place.
- Inter-cultural operations, fertilizer application, and earthing followed by irrigation are advised in sugarcane at tillering stage.
- Under prevailing weather conditions, digging of mature summer groundnut crops is advised.
- Vaccinate the animal to prevent Hemorrhagic Septicemia (HS) and black quarter disease.

Odisha

165 mm (48% excess) rainfall received over Odisha during 01 March - 25 May 2023. The extended range weather forecast (rainfall) provided for the next two weeks (26 May - 01 June 2023 and 02 - 08 June 2023) over Odisha is below normal for week-1 and; week-2.

- Under prevailing weather condition sowing of rice is advised with recommended upland rice varieties (Matures in 100-120 days) like *Khandagiri*, *Sahabhazi Dhan*, *Mandakini*, *Naveen*, *GB-1*, *Bina-11*, *MTU-1010*, *Satyabhama*, *Swarna Shreya* etc. Medium land rice varieties (Matures in 120-140 days) like *MTU 1156*, *MTU 1153*, *Lalat*, *Improved Lalat*, *Manaswini*, *MTU-1001*, *Sampada*, *Gitanjali*, *Nua acharmati* etc. Low land rice varieties (Matures >140 days) like *Pratikshya*, *Swarna*, *Swarna Sub-1*, *Mrinalini*, *Hashanta*, *Rani Dhan*, *Pooja*, *MTU-1064*, *Sarala*, *Durga*, *Pradhan Dhan* etc.
- Due to prevailing dry weather condition and forecast of below normal rainfall during next week-1 and 2, farmers are advised to provide adequate amount of irrigation and apply mulches to maintain high moisture status in the soil.
- For protection against scorching heat, it is advised to provide shade in the poultry house. Sprinkle water on the shed at regular intervals to control high temperature. Provide clean and adequate water to the poultry.

Tamil Nadu

The amount of rainfall received over Tamil Nadu was 188 mm (66% large excess) during 01 March - 25 May 2023. The extended range weather forecast (rainfall) for the next two weeks (26 May - 01 June 2023 and 02 - 08 June 2023) is normal for week-1 and; week-2.

- Since dry weather is expected, cotton crops may be harvested.
- To manage the shoot fly infestation in sorghum crops, hence farmers are advised to set up the TNAU low-cost fish meal trap @ 12/ha till at 30 days old crop.

Kerala

219 mm (-25% deficit) received over Kerala during 01 March - 25 May 2023. The extended range weather forecast (rainfall) for the next two weeks (26 May - 01 June 2023 and 02 - 08 June 2023) is below normal for week-1 and; week-2.

- Land preparation and nursery for virippu paddy (rainfed) can be started after summer rains.
- Pepper vines can be planted with the onset of monsoon. Plant two or three rooted pepper vines on the north side in pits made at a distance of 15 cm from the standards.
- Under prevailing weather conditions, there is a chance of sigatoka disease in banana. As a prophylactic measure, it is advised to spray 1% Bordeaux mixture.
- Spraying of Bordeaux mixture 1.0% and drenching with Copper oxy chloride @ 4g/litre at monthly intervals prevents phytophthora blight incidence in pepper.

Maharashtra

29 mm (43% large excess) rainfall over Madhya Maharashtra; 45 mm (114% large excess) in Marathwada; 17 mm (19% excess) in Konkan region and 127 mm (415% large excess) over Vidarbha was recorded during 01 March - 25 May 2023. The extended range weather forecast (rainfall) for the next two weeks (26 May - 01 June 2023 and 02 - 08 June 2023) is below normal over Konkan, Madhya Maharashtra, Vidarbha and Marathwada for week-1 and; week-2, respectively.

Vidarbha

- Farmers are advised to harvest the matured early sown summer groundnut crop. In late sown groundnut crop which is at pod development stage, it is advised to maintain adequate moisture in the soil profile to reduce the impact of heat stress, and provide irrigation at early morning or late evening.
- In view of heat waves and thunderstorms with lightning at isolated places, it is advised to provide proper ventilation and heat protection in the animal. Hang curtains around the shed and sprinkle it with water.

Marathwada

- Select medium black, well drained, loose soil for sowing of *khariif* vegetable crops like chili, brinjal, tomato and onion crop.

- Harvesting of mature summer vegetable crops, watermelon, muskmelon, is advised and store the harvested produce at safe places.
- Irrigation management is advised in fruit orchards during early in the morning or at evening with the help of drip irrigation system in newly planted fruit plants. And provide shade to newly planted and young fruit plants to protect them from temperature and mulching should be done around the stem.

Madhya Maharashtra

- For the control of Fall armyworm in late sown maize (maturity stage), it is advised to use Tricho-cards @ 5 numbers per ha. If the outbreak is more spraying of Emamectin benzoate 4 %SG @5g or Chlorantraniliprole 18.5 % SC @4ml per 10 lit of water is recommended.
- 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.
- Apply Bordeaux mixture paste upto 1 meter height from soil level to avoid trunk cracking in mango.

Konkan

- Due to forecast for hot and humid weather, there is possibility for development of spongy tissue disease in harvested mango fruits. To prevent harvest the matured mango fruits before 10 am in the morning and after 4 pm in the evening at 80 to 85% maturity and keep the harvested fruits in shade.
- Start the land preparation operation for kharif season and expose soil to sun which will help in controlling weeds effectively.
- To prevent the incidence of bud rot disease on young coconut plant during monsoon season, it is advised to spray 1% bordo mixture onto the crown region of palm.

Anantapur

136 mm (103% large excess) rainfall received over Rayalaseema and 178 mm (104% large excess) rainfall received over Coastal Andhra Pradesh during 01 March - 25 May 2023. The extended range weather forecast (rainfall) provided for the next two weeks (26 May - 01 June 2023 and 02 - 08 June 2023) is normal over Rayalaseema and below normal over Coastal Andhra Pradesh for week-1 and; below normal over Rayalaseema and normal over Coastal Andhra Pradesh for week-2.

- In view of the scorching heat due to heat waves, the public is advised to stay hydrated during the hot weather and follow the precautions in this regard. Further, the farmers are

advised to take up farm operations during morning or evening hours and avoid exposure to heated environments

- Where ever pre-monsoon rainfall is received, farmers are advised to take up deep ploughings to improve the soil moisture storage capacity, thereby extending the soil moisture availability to crops during the crop growth period.
- Present weather conditions are congenial for the incidence of fruit borer in brinjal grown in East Godavari, Krishna, Guntur, and Nellore districts. To control, spraying of Broflanilide 20% SC @ 1ml/4liter of water is recommended.

Gujarat

20 mm (544% large excess) rainfall received over Gujarat during 01 March - 25 May 2023. The extended range weather forecast (rainfall) provided for the next two weeks (26 May - 01 June 2023 and 02 - 08 June 2023) over Gujarat is above normal for week-1 and; below normal for week-2.

- Harvest paddy crop under clear sky conditions at early morning or evening time to avoid seed shattering and keep in the field for sun dry.
- Prop the sugarcanes by tying together the canes in clumps to protect against high wind speed. Remove 25% lower mature leaves to improve sugar content and yield in sugarcane.

Karnataka

139 mm (15% excess) rainfall received over South Interior Karnataka, 51 mm (-55% deficit) over Coastal Karnataka and 97 mm (48% excess) rainfall received over North Interior Karnataka during 01 March - 25 May 2023. The extended range weather forecast (rainfall) provided for the next two weeks (26 May - 01 June 2023 and 02 - 08 June 2023) is below normal over North Interior Karnataka and Coastal Karnataka and normal over South Interior Karnataka for week-1 and; week-2.

South Interior Karnataka

- Mango growers advised to harvest matured fruit and try to leave one or two inches of stem in the mango bunch, which helps to avoid sap burn disease.
- In mango, fruit fly damage is also noticed suitable control measure by spraying Carbaryl 4 g/litre of water.

North Interior Karnataka

- Farmers are advised to harvest matured wheat, groundnut and sunflower under clear weather condition with necessary precautionary measures.
- To manage branch cutting and fruit borer in brinjal, remove the infested branch along with the larva and burn and spray the crop with Quinalphos 2 ml dissolved in one liter of water. Repeat the same spray at 15 days interval
- 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.

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