



राष्ट्रीय कृषि मौसम परामर्शी सेवाएं बुलेटिन National Agromet Advisory Services Bulletin

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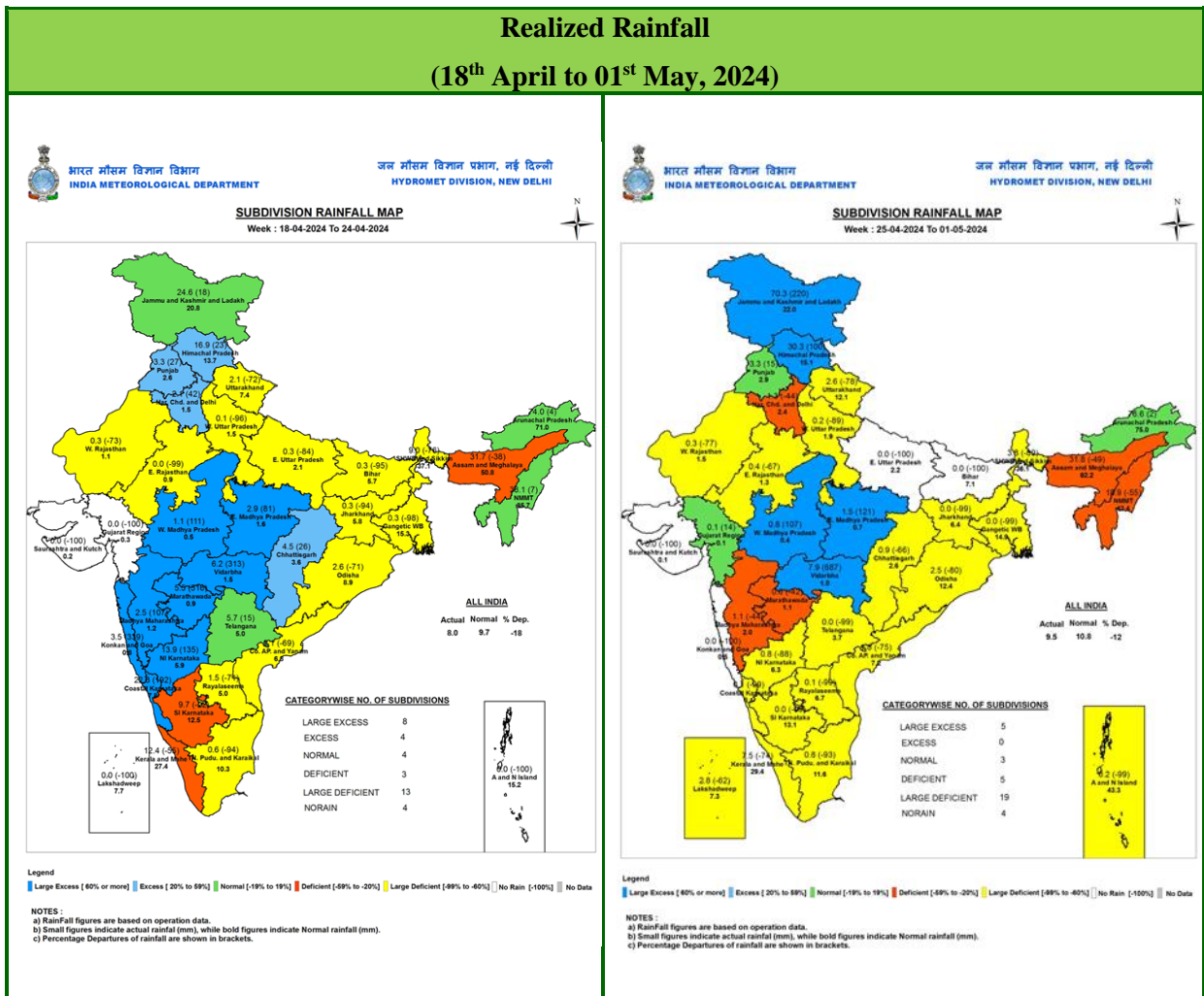
पृथ्वी प्रणाली विज्ञान संगठन

Earth System Science Organization

Realized Rainfall and Extended Range Forecast

Realized Rainfall

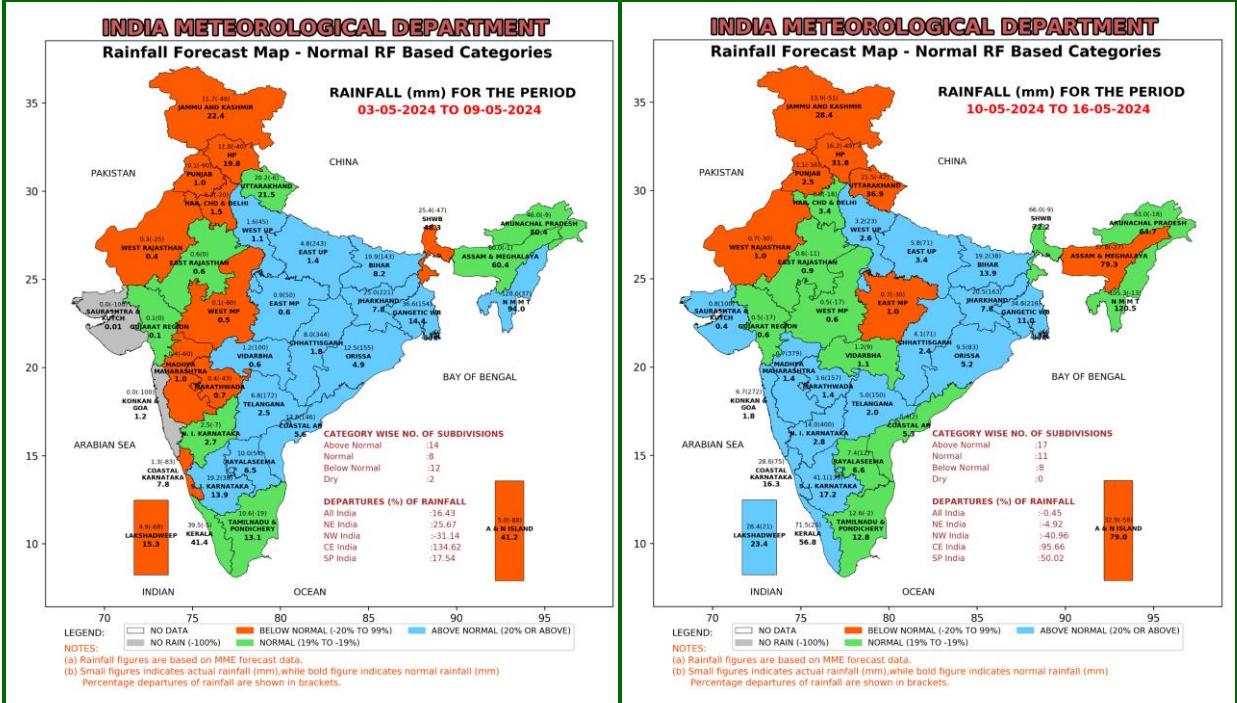
(18th April to 01st May, 2024)



- Normal or above normal rainfall occurred in both the weeks over Jammu & Kashmir and Ladakh (UTs), Himachal Pradesh, Punjab, Arunachal Pradesh, Madhya Pradesh and Vidarbha.
- Normal or above normal rainfall occurred in either of the two weeks over Haryana Chandigarh & Delhi, Nagaland Manipur Mizoram & Tripura (NMMT), Gujarat Region, Konkan & Goa, Madhya Maharashtra, Marathwada, Chhattisgarh, Telangana, North Interior Karnataka and Coastal Karnataka.
- Below Normal rainfall/no rain occurred in both the weeks over rest of the States & UTs.

Extended Range Forecast System

Rainfall forecast maps for the next 2 weeks (IC- 01st May, 2024) (03rd to 16th May, 2024)



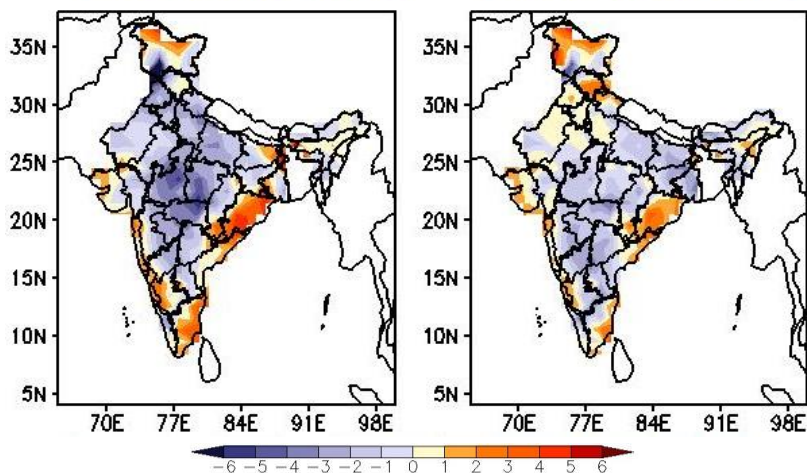
- Week 1 (03.05.2024 to 09.05.2024) and Week 2 (10.05.2024 to 16.05.2024):** Rainfall is likely to be slightly above normal over Bihar, Jharkhand, Gangetic West Bengal, Odisha, Chhattisgarh and some parts of northeast India; normal to slightly below normal over Jammu & Kashmir, Himachal Pradesh and Uttarakhand. Rainfall is also likely over most parts of South India and Madhya Maharashtra.

**Maximum and Minimum temperature anomaly ($^{\circ}$ C) forecast
for the next 2 weeks (IC- 01st May, 2024)
(03rd to 16th May, 2024)**

MME forecast Tmax anomaly (Deg C)

(Week1: 03May-09May)

(Week2: 10May-16May)



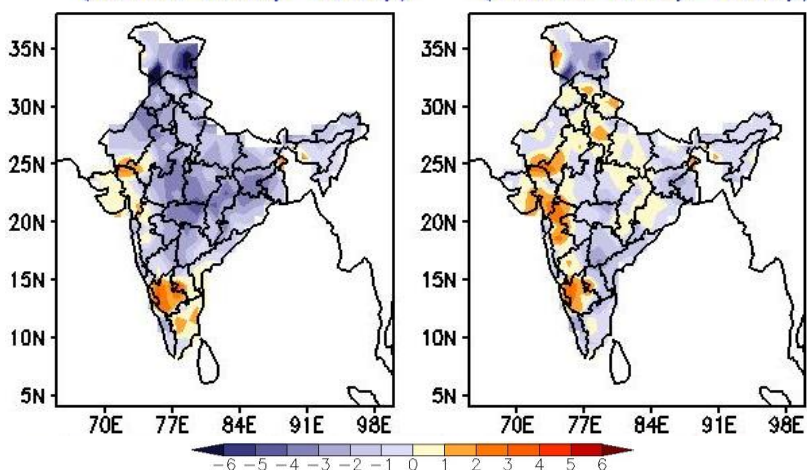
Maximum Temperature (Tmax)

- **Week 1 (03.05.2024 to 09.05.2024):** Maximum temperature is likely to be above normal over Jammu & Kashmir, some parts of West Rajasthan and Gujarat, parts of Bihar, regions along the East coast and West Coast of India. However, it is likely to be below normal over parts of Central India and many parts of Northwest India.
- **Week 2 (10.05.2024 to 16.05.2024):** Maximum temperature is likely to be above normal over many parts of Northwest India and Gujarat; parts of East coast and West Coast of India.

MME forecast Tmin anomaly (Deg C)

(Week1: 03May-09May)

(Week2: 10May-16May)



Minimum Temperature (Tmin)

- **Week 1 (03.05.2024 to 09.05.2024):** Minimum temperature is likely to be below normal over most parts of the country. However, it is likely to be above normal over South Karnataka, Tamil Nadu, Rayalaseema, Gujarat and some parts of Rajasthan.
- **Week 2 (10.05.2024 to 16.05.2024):** Minimum temperature is likely to be above normal over many parts of Northwest India, Gujarat, Madhya Maharashtra, Karnataka and slightly above normal over Odisha, Chhattisgarh and Madhya Pradesh.

Agromet Advisories

Uttar Pradesh

22 mm (19% excess) rainfall received over Western Uttar Pradesh and rainfall received over Eastern Uttar Pradesh was 14 mm (-14% deficit) during 01 March - 05 May 2024. The extended range weather forecast (rainfall) for the next two weeks (03 - 09 May 2024 and 10 - 16 May 2024) is above normal over Western Uttar Pradesh and Eastern Uttar Pradesh during week 1 and; week 2.

Western Uttar Pradesh

- As forecast of above-normal rainfall and below normal temperature during this week, farmers are advised to harvest and threshing of the wheat crop as early as possible and keep at a safe place.
- To prevent the fruit dropping of mango, it is advised to spray Naphthalene acetic acid (NAA) with 20 ppm solution per litre of water.
- To protect brinjal and chilli crop (fruiting stage) from food borer farmers are advised to spray Azadirachtin 1.0% EC (1000 ppm) @ 2 ml/litre water.
- To protect the chickens from heat, arrange curtains, fans and ventilation in the hen house. To reduce the temperature of the hen house, cover the roof of the shed with straw

Eastern Uttar Pradesh

- Under prevailing weather conditions, sowing of fodder crops (gwar, maize, bajra, and cluster bean) is advised during this week. Adequate moisture is advised to maintain for maximum germination of seeds. Sowing at a depth of 3-4 cm and at row-to-row spacing of 25-30 cm.
- Constant monitoring of okra (bhendi) crops against mites is advised. If the population is above ETL then, spraying of Spiromesifen 22.90 % SC @ 1 ml/litre or Fenazaquin 10 % EC @ 2 ml/litre of water is advised during a clear sky.
- To control shoot and fruit borer in brinjal and tomato crops, infested fruits and shoots should be collected and buried inside the soil. Installation of pheromone trap @ 2-3 traps per acre is advised for monitoring. If the population increase, spraying of Spinosad 45C @ 0.35 ml or Lambda-cyhalothrin 05 % EC @ 1ml per liter of water is advised.

Himachal Pradesh

210 mm (11% excess) rainfall was received over Himachal Pradesh during 01 March - 05 May 2024. The extended range weather forecast (rainfall) provided for the next two weeks (03 - 09 May 2024 and 10 - 16 May 2024) over Himachal Pradesh is below normal for week 1 and; week 2.

In high hills, farmers can go in for sowing of vegetables:

- **Garden Pea:** Palam Priya, Azad P-1, PB-86, GS-10, Palam Samool and Lincoln
- **Radish:** Pusa Himani
- **Carrot:** Nantes and Chantenay
- **Turnip:** PTWG
- **Spinach:** Pusa Harit and Pusa Bharti

In addition, transplant cabbage, cauliflower, broccoli, lettuce and other exotic vegetable seedlings in high hills of the state.

- Pluck the tea leaves (two leaves and a bud) at 8-10 days intervals to maintain the quality and productivity.
- Outbreak of armyworm/stem borer is reported in wheat crop (soft to hard dough in mid and high hills) in many parts of the state. For the control of these pests spray either Chlorpyrifos 20 EC @ 2 ml/litre of water.
- In view of thunderstorm with lightning, hail and gusty winds (30-40 kmph) is likely at isolated places on 26 - 28 April over Himachal Pradesh and heavy rainfall at isolated places is likely over Himachal Pradesh on 29 April. Farmers are advised to keep the produce in a safe place and the sowing of summer vegetables will be postponed for 2-3 days.

Jammu

281 mm (6% excess) rainfall was received over Jammu during 01 March - 05 May 2024. The extended range weather forecast (rainfall) provided for the next two weeks (03 - 09 May 2024 and 10 - 16 May 2024) over Jammu is below normal for week 1 and; week 2.

- Due to the forecast of below-normal rainfall in this week, farmers may go for harvesting of wheat crop (early/normal sown) due to clear weather. Threshing of crops is recommended after proper drying and after that store the threshed wheat grain after proper drying. Clean and disinfect the store bins before storage of crops.
- Due to the forecast of below-normal rainfall in this week, farmers may go for sowing of Mash (var.) *Pant U-19*, *Uttara* and Moong (var.) *PDM-54*, *ML-131*, *ML 818*, *PS-16*, *PS-7* at vattar condition of soil.
- It is the right time to start beekeeping, especially for beginners. Artificial feeding of the bee colonies with a sugar: water solution 1:1 ratio is recommended. And, also reduce the entrance of boxes to protect bees from rain.

Rajasthan

7 mm (-32% deficit) rainfall was received over East Rajasthan during 01 March - 05 May 2024. The extended range weather forecast (rainfall) provided for the next two weeks (03 - 09 May 2024 and 10 - 16 May 2024) over East Rajasthan is normal for week 1 and; week 2.

- Summers deep ploughing is advised to open the field that is required for exposure of insect eggs and pupa and weed seeds towards sunlight.
- Intercultural operations and hand hoeing are advised to control weed infestation and proper pegging.

Haryana

21 mm (-24% deficit) rainfall was received over Haryana during 01 March - 05 May 2024. The extended range weather forecast (rainfall) provided for the next two weeks (03 - 09 May 2024 and 10 - 16 May 2024) over Haryana is above normal for week 1 and; normal for week 2.

- Due to the possibility of variable weather and rainfall during this week, farmers are advised to withhold irrigation in the next three days in sugarcane crop which is at the seedling stage.
- It is the right time for direct sowing of okra and cowpea and cucurbits like muskmelon, cucumber, bitter gourd, bottle gourd, pumpkin, sponge gourd, squashes etc.

Punjab

31 mm (-23% deficit) rainfall was received over Punjab during 01 March - 05 May 2024. The extended range weather forecast (rainfall) provided for the next two weeks (03 - 09 May 2024 and 10 - 16 May 2024) over Punjab is below normal for week 1 and; week 2.

- Fruit drop is increasing due to rise in temperature; therefore, it is advised to provide irrigation to keep the soil moist in peach and plum orchards.
- Farmers are advised to start sowing of fodder maize, sorghum, bajra, Napier bajra and guinea grass to get early fodder.
- Irrigate the sugarcane crop at 7-12 days intervals for better growth of the crop. Apply paddy straw or rice husk or sugarcane trash @ 20-25 q/acre between the rows of sugarcane to reduce soil temperature and moisture loss.
- For controlling purple blotch in onion which is at the vegetative stage, it is advised to spray Difenconazole 25 EC@ 100 ml mixed with 100 litres of water then mix it with 500 litres per hectare or Tebuconazole 38.39% w/w SC @1 ml per litre of water as soon as the first symptom of purple blotch appears in the field.

West Bengal

52 mm (-44% deficit) rainfall was received over Gangetic West Bengal and rainfall received over Sub Himalayan West Bengal was 139 mm (-36% deficit) during 01 March - 05 May 2024. The extended range weather forecast (rainfall) for the next two weeks (03 - 09 May 2024 and 10 - 16 May 2024) is above normal rainfall over Gangetic West Bengal and below normal over Sub-Himalayan West Bengal during week 1; and normal over Sub-Himalayan West Bengal and above normal over Gangetic West Bengal for week 2.

- Due to heat wave conditions in past week, farmers are advised to maintain proper soil moisture by using mulches and applying light and frequent irrigation in green gram and various crops during morning and afternoon hours to avoid heat stress. Vegetable fields are advised to keep under irrigation.
- Considering the forecast of rainfall in this week, fresh sowing of okra is not recommended as okra seed is very susceptible to decay at high soil moisture.
- Mulch material-like residue may be used to conserve moisture and prevent soil from cracking.
- Due to prevailing hot and dry weather conditions, farmers are advised to keep the cattle under shade during day time. Electrolyte mixed water is advised to avoid dehydration.

Bihar

32 mm (35% large excess) rainfall was received over Bihar during 01 March - 05 May 2024. The extended range weather forecast (rainfall) provided for the next two weeks (03 - 09 May 2024 and 10 - 16 May 2024) over Bihar is no rainfall for week 1 and; below normal over week 2.

- Given rainfall during this week, farmers are advised to take utmost care in the harvesting and threshing of wheat, early sown rabi maize and pigeon pea crop. Complete the threshing of the harvested wheat crop at the earliest.
- In view of rainfall during this week, farmers are advised to postpone irrigation in standing crop. Also postpone spraying of pesticides in the crop during this period.

- Monitoring is advised for infestation of red pumpkin beetle in cucurbitaceous crops. If infestation is found, spraying of cyantranilprole 10.26 % OD@1.5 ml per water is advised.

Odisha

66 mm (1% excess) rainfall received over Odisha during 01 March - 05 May 2024. The extended range weather forecast (rainfall) provided for the next two weeks (03 - 09 May 2024 and 10 - 16 May 2024) over Odisha is above normal for week 1 and; week 2.

- Considering the forecast of high day temperatures along with heatwave conditions, farmers are advised to provide frequent irrigation to the standing crops during evening or early morning hours and the time of irrigation should be prolonged in a conventional method.
- In view of rainfall during the second half of the week, farmers are advised to harvest the matured produce before due time.
- Use a temporary shade net to protect the fruit plants from high temperatures.
- Make arrangements for drip irrigation with organic mulch to reduce evaporation loss in standing vegetables and fruit orchard.
- Due to high variation of temperature between day and night leads to infestation of neck blast disease. To control blast disease spray Hexaconazole 5% SC @ 500 ml/acre or Azoxystrobin 18.2% + Difenconazole 11.4 % SC @ 500 ml/acre.

Chhattisgarh

46 mm (99% large excess) rainfall received over Chhattisgarh during 01 March - 05 May 2024. The extended range weather forecast (rainfall) provided for the next two weeks (03 - 09 May 2024 and 10 - 16 May 2024) over Chhattisgarh is above normal for week 1 and; week 2.

- Due to high minimum and maximum temperatures and below-normal soil moisture status cause thermal stress in crops. Farmers are advised to adopt water conservation agronomic techniques and apply light irrigation in *rabi* crops wherever required.
- This time is favourable for summer maize sowing, hence the farmers are advised to prepare fields without stubble after harvesting of wheat/chickpea in irrigated areas and complete the sowing of maize crop as soon as possible and sow the recommended varieties of maize for corn.
- If yellow stem borer is observed in the rice crop, it is advised to spray Cartap Hydrochloride 75 % SG @ 1gram or Chlorpyrifos 20 % EC @ 1.5 ml per litre of water.

Madhya Pradesh

38 mm (128% large excess) rainfall received over East Madhya Pradesh during 01 March - 05 May 2024. The extended range weather forecast (rainfall) provided for the next two weeks (03 - 09 May 2024 and 10 - 16 May 2024) over East Madhya Pradesh is above normal for week 1 and; below normal for week 2.

- As day temperature is very high, fruit trees should be irrigated regularly. Pomegranate, sapota and lemon at the fruit formation stage. Apply irrigation at 4-5 days intervals. This will rise in humidity under the canopy resulting in less cracking of fruits.

- Due to high temperature, powdery mildew symptoms were observed in the leaves of cucurbit vegetables. To manage, it is advised for two sprays of Dinocap 48 EC at 0.1 % at 15 days intervals.

Gujarat

4 mm (240% large excess) rainfall received over Gujarat during 01 March - 05 May 2024. The extended range weather forecast (rainfall) provided for the next two weeks (03 - 09 May 2024 and 10 - 16 May 2024) over Gujarat is normal for week 1 and; week 2.

- Under prevailing weather conditions, propping is advised in banana plants with the help of bamboo at the bunch development stage. Cover the peduncle and whole bunch with dried banana leaves to protect them from direct sunlight. Use of straw, dry leaves, crop residue, etc as a mulch material in banana orchards is useful in increasing the bunch weight and conserving soil moisture.
- Under present weather conditions, a severe attack of thrips was observed in the chilli crop. Farmers are advised to spray Cyantraniliprole 10.26 % OD @1.2ml or Imidacloprid 17.80 % SL@0.5ml per liter of water

Maharashtra

5.5 mm (-50% deficit) rainfall over Madhya Maharashtra; 59 mm (225% large excess) rainfall over Vidarbha; 18 mm (35% excess) rainfall over Marathwada; and 4 mm (-18% deficit) rainfall over Konkan region was recorded during 01 March - 05 May 2024. The extended range weather forecast (rainfall) for the next two weeks (03 - 09 May 2024 and 10 - 16 May 2024) is no rainfall over Konkan and below normal over Madhya Maharashtra and Marathwada and above normal over Vidarbha for week 1 and above normal over Konkan, Vidarbha, Madhya Maharashtra and Marathwada for week 2, respectively.

Parbhani

- For moisture conservation and maintenance of soil temperature mulching is advised in newly planted horticultural orchards.
- As per the forecast of an increase in maximum temperature and below-normal rainfall, irrigation management is advised as per requirement and soil moisture conditions in summer groundnut, summer sesame and other horticultural crops. Irrigation is advised early in the morning or at evening hours with the help of a micro irrigation system.
- As mainly dry weather is expected during this week, it is advised to continue harvesting of matured onion, groundnut, watermelon, muskmelon, mango and sapota.

Vidarbha

- Under prevailing high temperatures, it is advised to apply irrigation at an interval of 6 to 7 days in summer groundnut, sesame, green gram etc., during in the early morning or evening hours. Shallow/lighter soils require more frequent and lighter irrigation.
- For control of leaf miners, thrips, and jassids in groundnut, it is advised to spray Isocycloseram 9.2% W/W Dc @ 1ml/liter of water or Lambda-cyhalothrin 5 EC @ 1.5 ml or Quinalphos 25% @ 1.4 ml per litre of water.

Madhya Maharashtra

As heat wave is prevailing in Solapur district, it is advised to:

- provide irrigation to vegetables and newly planted orchards,
- apply straw mulch in orchards and vegetables to reduce evaporation losses,
- apply irrigation to tomato to avoid early fruit maturity,
- cover the roof of the animal sheds with materials such as paddy straw, and dry coconut leaves and make arrangements to sprinkle water on the roof of the shed during afternoon time.
- As dry weather prevailed and is likely to prevail during this week it is advised to continue harvesting of matured onion and apply irrigation to summer groundnut and pearl millet.

Kerala

58 mm (-64% large deficit) rainfall received over Kerala during 01 March - 05 May 2024. The extended range weather forecast (rainfall) for the next two weeks (03 - 09 May 2024 and 10 - 16 May 2024) is normal for week 1 and; above normal for week 2.

Due to the forecast of above normal temperature and below-normal rainfall, the following are immediate steps to be followed to protect people, plants, and birds from the summer heat.

- Since dry and hot weather conditions is prevailed, provide irrigation to banana plants as per requirement. Mulching can be practised to conserve soil moisture.
- Since dry weather conditions prevail, irrigate areca nut once in 3-5 days @ 175 litres per palm. Protect the palms from direct sunlight by wrapping the stems with areca sheaths or whitewashing the exposed portion.
- Protect the pepper plants from direct sunlight by smothering the basal portions of the vines with dried banana leaves, plated coconut leaves, etc. And, also provide protective irrigations one in every two weeks.

Andhra Pradesh

2.3 mm (-93% large deficit) rainfall was received over Rayalaseema and 12 mm (-72% large deficit) rainfall was received over Coastal Andhra during 01 March - 05 May 2024. The extended range weather forecast (rainfall) provided for the next two weeks (03 - 09 May 2024 and 10 - 16 May 2024) is above normal over Rayalaseema and Coastal Andhra Pradesh for week 1 and; normal over Rayalaseema and Coastal Andhra Pradesh for week 2.

- Due to high temperature/heat waves stunted growth and incidence of sucking pests were observed in groundnut crop. Farmers are advised to apply light and frequent irrigation to the standing crop and increase the frequency of irrigation at critical growth stages.
- Mulch with crop residue, straw, and groundnut shell to conserve soil moisture. Irrigate only during the early morning and evening hours.
- Prevailing dry weather conditions are congenial for the incidence of dry root rot in sweet orange. To control, farmers are advised to apply light and frequent irrigation and after irrigation soil drenching with Mancozeb @ 3 g/litre (based on age of the plant 10-15 litres of spray fluid) after a week Carbendazim 2 g/litre and use mulching material during summer to prevent water loss through the soil.

- Prevailing dry weather conditions are suitable for the incidence of thrips in chillies. To control go for spraying with Cyantranilprole 10.26 % OD @1.2ml or Imidacloprid 17.80 % SL@0.5ml per liter of water

Karnataka

18 mm (-73% large deficit) rainfall was received over South Interior Karnataka, 28 mm (-38% deficit) Coastal Karnataka and 26 mm (-28% deficit) over North Interior Karnataka during 01 March - 05 May 2024. The extended range weather forecast (rainfall) provided for the next two weeks (03 - 09 May 2024 and 10 - 16 May 2024) is below normal over Coastal Karnataka, normal over North Interior Karnataka and above normal over South Interior Karnataka for week 1 and; above normal over Coastal Karnataka, North Interior Karnataka and South Interior Karnataka for week 2.

South Interior Karnataka

The intense heat caused agricultural land to dry up and crack, leading to significant water losses from plant bodies leading to desiccation in fruit and flower crops in many districts of the state. The following measures are advised to overcome high temperatures and heat

- Lifesaving irrigation and mulching is advised to reduce moisture losses from the soil in wide-spaced field and horticulture crops.
- Opting for sprinkler irrigation to bring down microclimate temperature in field and horticulture crops.
- Spray of anti-transpirant cum anti-stress products (Green miracle, etc.) 2 ml per litre water as foliar spray, biostimulants and anti-stress products (Megafol) foliar spray of 1.5 to 2 ml per litre water to reduce flower drop in grapes, gourds, tomato, cucumber, etc.
- Shelter management for providing adequate shade and ventilation by installing fans, vents, etc. for enhanced airflow, and installation of cooling systems in animal shelters.
- Addition of minerals in the feeds of milch animals to improve heat-overcoming capacity in animals.

North Interior Karnataka

- As very light rainfall was forecasted during this week, it is advised to provide irrigation looking to the rainfall condition to horticultural crops.
- Summer ploughing can be taken up across the slope to incorporate crop residues in the soil, to conserve runoff water of pre-monsoon rainfall and reduce soil erosion.
- To manage bacterial blight disease in lime (fruit development stage), it is advised to spray the crop with 3 g Copper Oxy-chloride or 1 % Bordeaux mixture dissolved in one litre of water or 300 ppm Streptomycin (3 g in 10 liters of water).

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