



राष्ट्रीय कृषि मौसम परामर्शी सेवाएं बुलेटिन National Agromet Advisory Services Bulletin

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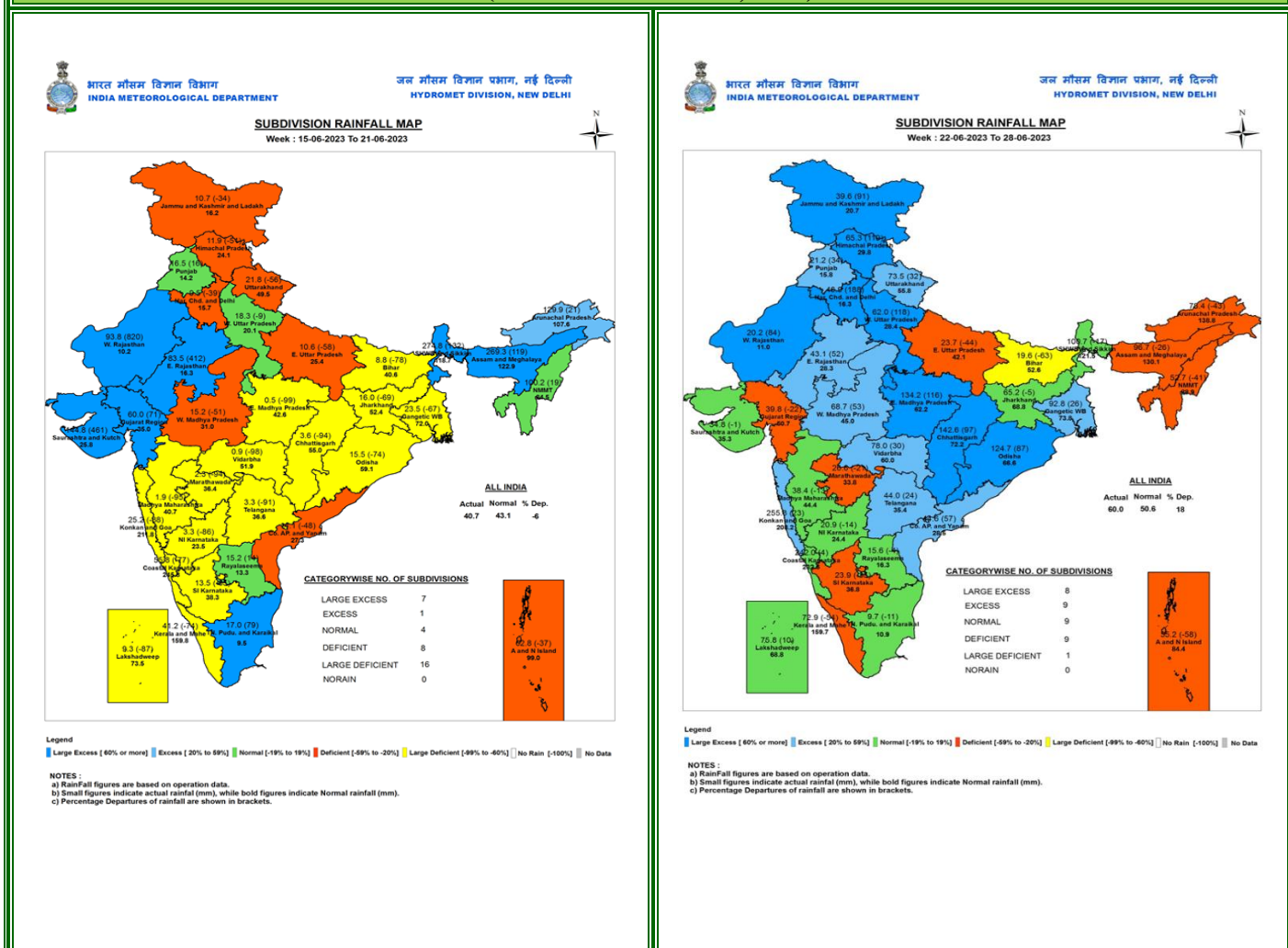
India Meteorological Department (IMD)

पृथ्वी प्रणाली विज्ञान संगठन

Earth System Science Organization

Realized Rainfall and Extended Range Forecast (Rainfall and Temperature)

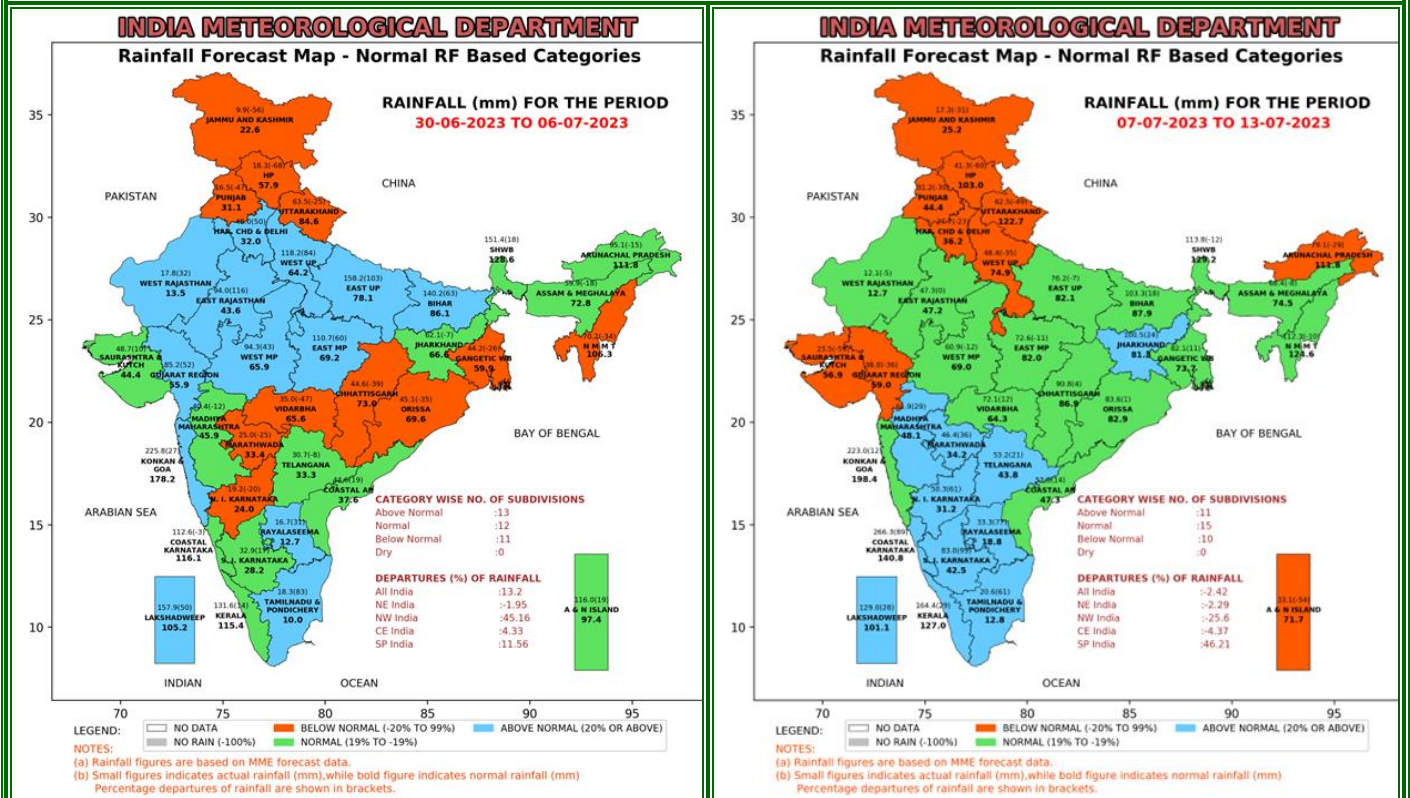
Realized Rainfall (15th June to 28th June, 2023)



- Normal or above normal rainfall occurred in both the weeks over Punjab, West Uttar Pradesh, Sub-Himalayan West Bengal & Sikkim, Rajasthan, Saurashtra & Kutch, Rayalaseema and Tamil Nadu Puducherry & Karaikal.
- Normal or above normal rainfall occurred in either of the two weeks over Jammu & Kashmir and Ladakh (UTs), Himachal Pradesh, Uttarakhand, Haryana, Chandigarh & Delhi, Jharkhand, Gangetic West Bengal, Arunachal Pradesh, Assam & Meghalaya, Nagaland Manipur Mizoram & Tripura (NMMT), Gujarat Region, Madhya Pradesh, Chhattisgarh, Odisha, Konkan & Goa, Madhya Maharashtra, Vidarbha, Telangana, Coastal Andhra Pradesh & Yanam, Coastal Karnataka, North Interior Karnataka and Lakshadweep.
- Below Normal rainfall occurred in both the weeks over East Uttar Pradesh, Bihar, Marathwada, South Interior Karnataka, Kerala & Mahe and Andaman & Nicobar Islands.

Extended Range Forecast System

Rainfall forecast maps for the next 2 weeks (IC- 28th June) (30th June to 13th July 2023)



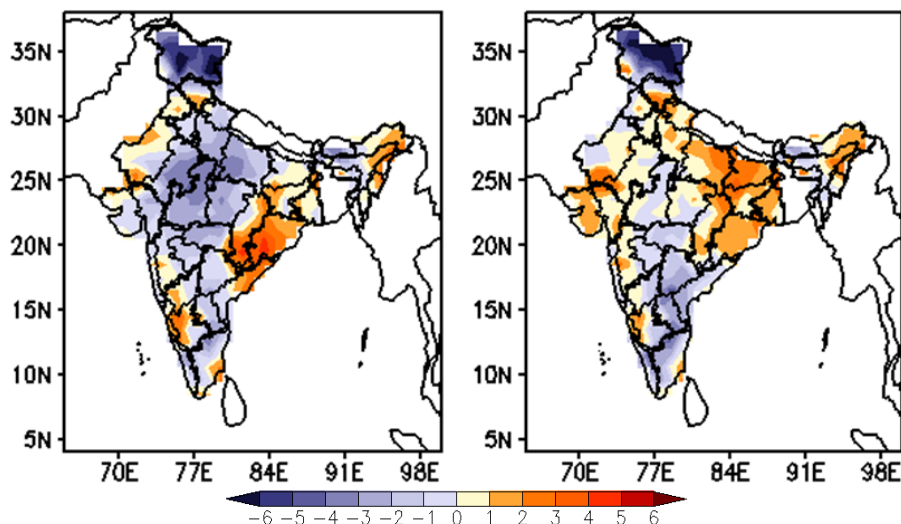
- Week 1 (30.06.2023 to 06.07.2023):** Rainfall is likely to be normal to above normal over north, northwest and western India. However, it is likely to be below normal over parts of east and central India.
- Week 2 (07.07.2023 to 13.07.2023):** Rainfall is likely to be normal to above normal over Peninsular, central and East India. However, decrease in rainfall activity is likely over northwest India.

**Maximum and Minimum temperature anomaly ($^{\circ}\text{C}$) forecast
for the next 2 weeks (IC- 28th June)
(30th June to 13th July 2023)**

MME forecast Tmax anomaly (Deg C)

(Week1: 30Jun–06Jul)

(Week2: 07Jul–13Jul)



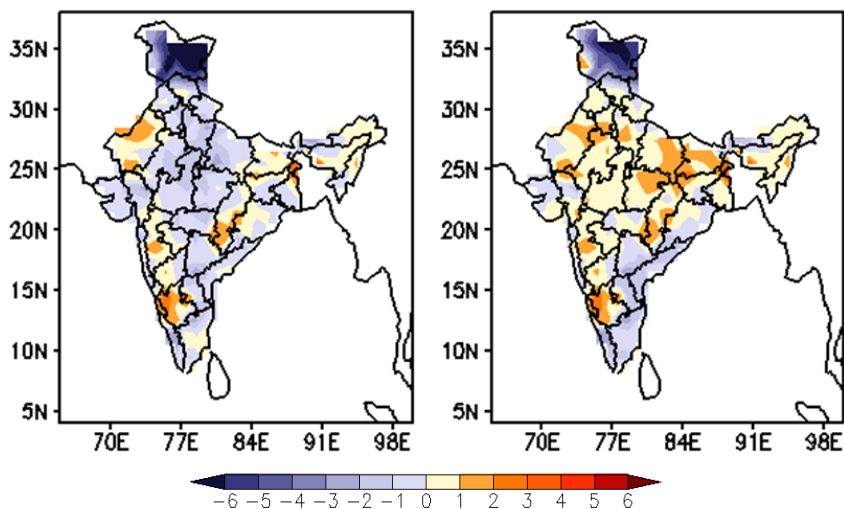
Maximum Temperature (Tmax)

- **Week 1 (30.06.2023 to 06.07.2023):** Tmax will be above normal over Odisha, Gangetic West Bengal, Jharkhand, Chhattisgarh and northeast India. However, it is likely to be below normal over rest parts of the country.
- **Week 2 (07.07.2023 to 13.07.2023):** Tmax will be above normal over east India and parts of north and northeast India.

MME forecast Tmin anomaly (Deg C)

(Week1: 30Jun–06Jul)

(Week2: 07Jul–13Jul)



Minimum Temperature (Tmin)

- **Week 1 (30.06.2023 to 06.07.2023):** Tmin is likely to be below normal over most parts of the country.
- **Week 2 (07.07.2023 to 13.07.2023):** Tmin is likely to be slightly above normal over many parts of the country. However, it is likely to be slightly below normal over coastal regions of country.

Agromet Advisories

Uttar Pradesh

The amount of rainfall received over East Uttar Pradesh was 43 mm (-58% deficit) and over West Uttar Pradesh was 91 mm (26% excess) during 01 - 29 June 2023. The extended range weather forecast (rainfall) for the next two weeks (30 June - 06 July 2023 and 07 - 13 July 2023) is above normal over East Uttar Pradesh and West Uttar Pradesh for week-1; normal over East Uttar Pradesh and below normal over West Uttar Pradesh for week-2.

Western Uttar Pradesh

- Due to rainfall in past week and forecast of above normal rainfall during next week, farmers are advised to drain out excess rain water from paddy nursery and advised for sowing of short duration rice varieties like *I18*, *N-80*, *N-1*, *N-2*, *N-97*, *Pant dhan-12*, *Barani deep*, *IR-50*, *Ratna*, *HUR-3022* and scented rice like *T-3*, *Pusa basmati-1*, *Pusa sungandh-4* & 5, and *Malviya sugandh-4-3* and *Malviya basmati 10-9* etc.
- Under prevailing rainy weather condition and forecast of above normal rainfall during next week, farmers are advised to postpone the sowing of *kharif* maize and start sowing after rainfall.
- Due to moderate to heavy rainfall received during past week, farmers are advised to keep harvested crops (*zaid* maize, urd and moong) in safer places and threshed grain should be dried.
- Under prevailing rainy weather condition, farmers are advised skip irrigation and intercultural operations in sugarcane crop, which is at vegetative stage.

Uttarakhand

134 mm (-20% deficit) rainfall was received over Uttarakhand during 01 - 29 June 2023. The extended range weather forecast (rainfall) provided for the next two weeks (30 June - 06 July 2023 and 07 - 13 July 2023) over Uttarakhand is below normal for week-1 and; week-2.

- Farmers are advised to remove rotten mulch from crop fields and avoid water stagnation in the ginger field.
- Under prevailing weather conditions, farmers are advised to continue the sowing of *kharif* crops like finger millet, soybean, urd, rice bean etc.
- Farmers are advised to harvest mature peach, plum, apricot fruits.
- To manage the infestation of fruit fly in vegetable crops, it is advised to use poison bait trap in the field. To prepare a poison bait trap, mix 100 g of jaggery with 2 to 5 ml of any systemic insecticide. Keep 8 to 10 g of mixture in a small bowl having 3 to 4 holes around it.

Himachal Pradesh

119 mm (25% excess) rainfall was received over Himachal Pradesh during 01 - 29 June 2023. The extended range weather forecast (rainfall) provided for the next two weeks (30 June - 06 July 2023 and 07 - 13 July 2023) over Himachal Pradesh is below normal for week-1 and week-2.

- Due to forecast of below normal rainfall, it is advised to harvest/pick vegetables at morning and evening hours and after harvesting of crops keep them in shade.
- Farmers are advised to go for transplanting of paddy nursery in their fields with the spacing of 20 x 15 cm and direct sowing of recommended varieties of rice.

Varieties Recommended:

- ✓ Transplanting: *HPR 2143, HPR 1068, Palam Lal Dhan-1 and Him Palam Dhan-2, Kasturi basmati.*
- ✓ Under prevailing weather condition, there may be attack of stem borer in transplanted paddy. To control, it is advised to use Carbofuran 3G (granules) 33 kg/ ha at 10 days after transplanting in standing water.

Punjab

64 mm (29% excess) rainfall was received over Punjab during 01 - 29 June 2023. The extended range weather forecast (rainfall) provided for the next two weeks (30 June - 06 July 2023 and 07 - 13 July 2023) over Punjab is below normal for week-1 and week-2.

- It is optimum time for the sowing of nursery of basmati varieties viz., *CSR 30 and Pusa basmati 1509*, with assured irrigation.
- To protect paddy/basmati from seed borne diseases, it is advised to treat 8 kg seeds with Sprint 75 WS (Carbendazim + Mancozeb) by making slurry of 24 g fungicide formulation in 80-100 ml water before sowing.
- Harvest the cucurbits and other vegetables like tomato, chilli, brinjal and okra at regular intervals to get maximum yield.

Jammu

80.5 mm (13% excess) rainfall was received over Jammu during 01 - 29 June 2023. The extended range weather forecast (rainfall) provided for the next two weeks (30 June - 06 July 2023 and 07 - 13 July 2023) over Jammu is below normal for week-1 and; week-2.

- Farmers are advised to strengthen the paddy bunds field for *in situ* storage of rain water and utilize the same for puddling. Farmer may go for transplanting of rice seedling (2-3 healthy seedlings per hill)
- Farmers are advised to go for sowing of *kharif* maize (var: *Vivek-25, Vivek QOM-9 HM-5 and HQPM-1*) with seed rate of 20-30 kg/ha after receipt of rainfall at vattar/optimum soil moisture.

- Transplanting of rainy seasonal annuals (gaillardia, balsam, cosmos, portulaca, kochia, sunflower, morning glory, gomphrena, celosia etc.) may be done after receipt of rain at optimum soil moisture/ vattar condition of soil.

Assam

514 mm (9% excess) rainfall was received over Assam during 01 - 29 June 2023. The extended range weather forecast (rainfall) provided for the next two weeks (30 June - 06 July 2023 and 07 - 13 July 2023) over Assam is normal for week-1 and week-2.

- Farmers who have not yet sown the seeds of long duration *sali* rice varieties are advised to complete sowing in the nurseries within this week. Recommended varieties like *Ranjit*, *Bahadur*, *Piolee*, *Kushal*, *Moniram*, *Bhgalee*, *Aghoni* etc.
- This is the optimum time for sowing of pigeon pea in Assam, up to end of July. Farmers are advised to collect the seeds of suitable high yielding variety viz. *T-21* from recognized sources.
- Due to favourable weather condition incidence of fruit fly and leaf hopper in gourds, baiting with pesticides like Emamectin Benzoate or Flubendiamide mixed with molasses (1%) and fruit juice helps in controlling the pest.
- Considering the amount of rainfall received during the past week and forecast of light to moderate rainfall during next two weeks, farmers are advised to avoid waterlogging in jute fields and remove excess water from field immediately by creating field ditches of 20 cm wide and 20 cm depth, along the gradient, at an interval of 10 m.

West Bengal

163 mm (-32% deficit) rainfall received over Gangetic West Bengal and rainfall received over Sub Himalayan West Bengal was 512 mm (17% excess) during 01 - 29 June 2023. The extended range weather forecast (rainfall) for the next two weeks (30 June - 06 July 2023 and 07 - 13 July 2023) is below normal over Gangetic West Bengal and normal over Sub-Himalayan West Bengal during week-1 and; normal over Gangetic West Bengal and Sub-Himalayan West Bengal for week-2.

- Under prevailing weather condition, farmers are advised to apply fertilizer in *kharif* rice seed bed during clear weather condition.
- Farmers are advised that harvested vegetables should be keep in shade, clean and dry condition.
- To prevent fruit fly infestation in mango at fruit ripening stage, it is advised to install methyl eugenol traps.

Chhattisgarh

160 mm (-10% deficit) rainfall was received over Chhattisgarh during 01 - 29 June 2023. The extended range weather forecast (rainfall) provided for the next two weeks (30 June - 06 July 2023 and 07 - 13 July 2023) over Chhattisgarh is below normal for week-1 and; normal for week-2.

- Farmers are advised to arrange high yielding variety seeds for direct sown vegetables and field preparation should be done accordingly.
- Complete the transplanting of tuber crops such as arbi, jimikand, yam, dagkand, banda, up to 05 July.
- Farmers who wish to grow plantation crops are advised for field preparation and digging of pits. Well decomposed farm yard manure, and recommended dose of fertilizers should be mixed and filled 10 cm above the ground level.

Odisha

161 mm (-20% deficit) rainfall received over Odisha during 01 - 29 June 2023. The extended range weather forecast (rainfall) provided for the next two weeks (30 June - 06 July 2023 and 07 - 13 July 2023) over Odisha is below normal for week-1 and; normal for week-2.

- Farmers are advised to cover the vegetable nursery bed with paddy straw or dried leaves for better germination.
- Under prevailing weather condition, complete the propping of sugarcane and drain out excess water.
- It is time for nursery sowing of finger millet. Grow high yielding varieties like *Divyasingh*, *AKP-2*, *AKP-3*, *AKP-7*, *Godavari*, *Neelachal*, *Bhairavi*, *Shubhra*, and *Chilika*.

Gujarat

135 mm (8% excess) rainfall received over Gujarat during 01 - 29 June 2023. The extended range weather forecast (rainfall) provided for the next two weeks (30 June - 06 July 2023 and 07 - 13 July 2023) over Gujarat is above normal for week-1 and below normal for week-2.

- Due to forecast of above normal rainfall during next week, farmers are advised to prepare drainage channel to remove excess rain water from sugarcane field.
- Farmers are advised to start sowing chilli, tomato and brinjal seeds in raised bed or portrays with coco peat for raising of seedlings for *kharif* transplanting.

Maharashtra

63 mm (-58% deficit) rainfall over Madhya Maharashtra; 88 mm (-48% deficit) rainfall over Vidarbha; 41 mm (-68% large deficit) rainfall over Marathwada; and 423 mm (-36% deficit) in Konkan region was recorded during 01 - 29 June 2023. The extended range weather forecast

(rainfall) for the next two weeks (30 June - 06 July 2023 and 07 - 13 July 2023) is above normal over Konkan, normal over Madhya Maharashtra and below normal over Vidarbha and Marathwada for week-1 and; above normal over Madhya Maharashtra, Marathwada and normal over Konkan and Vidarbha for week-2, respectively.

Vidarbha

- Farmers are advised for sowing of soybean crop only under sufficient moisture condition, (about 75-100 mm monsoon rainfall). Recommended soybean varieties are *PDKV AMBA*, *JS 93-05*, *JS 95-60*, *JS 20-29*, *JS 20-34*, *MAUS-71*, *MAUS-158*.
- For sowing *kharif* cotton, recommended desi varieties are *AKA-5*, *AKA-7* and *AKA-8* with seed rate of 12 to 15 kg/ha. American improved varieties are *AKH-081* with seed rate 15 to 20 kg/ha, *AKH-09-5* (*Suvarna/ Shubhra*), *PKV Rajat* and *AKH 8828* with seed rate 10 to 12 kg/ha. Cotton desi hybrids *PKVDH-1*, and *PKV-Suvarna* are recommended
- Keep farm animals indoor during thunderstorm/lightning. In farm livestock preventive vaccination for foot and mouth disease (FMD) and preventive deworming for flat worms is advisable.

Marathwada

- Due to increase in maximum temperature and forecast of below normal rainfall during next week, irrigation is advised in summer groundnut during early in the morning or at evening hours with the help of a micro irrigation (Drip or Sprinkler) system.
- If fruit drop is observed in a mango orchard, it is advised take a spray of 2 % 13:00:45 + NAA 15 ppm.
- Threshing of harvested rabi sorghum and wheat crop is advised. Store the threshed grain at safe places.
- 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 up to 1-meter height from soil level to avoid trunk cracking in mango.

Konkan

- Maintain optimum water level of 5-10 cm in rice field where crop is in panicle initiation to flowering stage. Apply 3rd split dose of nitrogen @ 425 gm urea per guntha to the summer rice which is in flowering stage.
- Provide irrigation to green gram crops at 10 to 12 days interval where the crop is in the branching stage.

- To avoid pre-mature fruit drops, increasing the production and quality improvement of mango fruits, spray 1 % Potassium nitrate three spray at pea marble and arecanut size stage of mango fruits at an interval of 10-15 days.

Tamil Nadu

The amount of rainfall received over Tamil Nadu was 52 mm (5% excess) during 01 - 29 June 2023. The extended range weather forecast (rainfall) for the next two weeks (30 June - 06 July 2023 and 07 - 13 July 2023) is above normal for week-1 and; week-2.

- Due to forecast of above normal rainfall during week-1 and week-2, farmers are advised to do propping in sugarcane to protect the crop.
- Collect and destroy the various bio-stages of the beetle from the manure pits (breeding ground of the pest) whenever manure is lifted from the pits.
- To manage the shoot fly infestation in sorghum crops, farmers are advised to set up the TNAU low-cost fish meal trap @ 12/ha till at 30 days old crop.

Kerala

215 mm (-60% large deficit) received over Kerala during 01 - 29 June 2023. The extended range weather forecast (rainfall) for the next two weeks (30 June - 06 July 2023 and 07 - 13 July 2023) is normal for week-1 and; above normal for week-2.

- During rainy period, there is a chance of sheath blight, sheath rot, leaf spot disease in *virippu* rice. As a prophylactic measure, either soak one kg of paddy seeds or dip root of seedlings in a solution of *Pseudomonas* culture @ 10 g per one litre of water for 30 minutes.
- Ensure drainage facilities in water logged areas. As a prophylactic measure to bud rot disease in coconut, 1% Bordeaux mixture can be sprayed on coconut crown. Pesticides should not be applied during rain.
- During rainy season, there is a chance of rhizome rot in banana. To prevent, ensured proper drainage facilities. As a precaution, drench the basin with three litre of *pseudomonas* solution (20 g per one litre of water).

Anantapur

50 mm (-29% deficit) rainfall received over Rayalaseema and 71 mm (-33% deficit) rainfall received over Coastal Andhra Pradesh during 01 - 29 June 2023. The extended range weather forecast (rainfall) provided for the next two weeks (30 June - 06 July 2023 and 07 - 13 July 2023) is above normal over Rayalaseema and normal over Coastal Andhra Pradesh for week-1 and; week-2.

- Depending upon prevailing temperature and soil type, light irrigations are advised at seven days interval in mango crop which is at flowering to fruit development stage.

- The present weather conditions are favourable for the incidence of stem borer and leaf folder in paddy grown in Anantapur, Kurnool, Chittoor and Nellore districts, spraying of Cartap hydrochloride @ 2g or Chlorpyrifos 20EC @ 1.5 ml or Acephate 75 % SP @ 1gm/liter of water is recommended.

Karnataka

60 mm (-58% deficit) rainfall received over South Interior Karnataka, 409 mm (-50% deficit) over Coastal Karnataka and 46 mm (-55% deficit) rainfall received over North Interior Karnataka during 01 - 29 June 2023. The extended range weather forecast (rainfall) provided for the next two weeks (30 June - 06 July 2023 and 07 - 13 July 2023) is below normal over North Interior Karnataka and normal over South Interior Karnataka and Coastal Karnataka for week-1 and; above normal over North Interior Karnataka, South Interior Karnataka and Coastal Karnataka for week-2.

South Interior Karnataka

- The following crops are suggested for kharif sowing.

Under mono cropping the long duration crops:

- ✓ **Redgram:** TTB-7, BRG-1,2,4&5 Castor: DCS-9 (Jyothi), DCH-177 and 32
- ✓ **Maize:** Ganga-11, Deccan -103, Vijaya composite, Composite NAC-6004, 6002, Hybrid-Nityashree (NAH-2049).
- Take up land preparation and strengthen the bund with fodder grass to facilitate conservation of rainwater due to pre-monsoon showers. Ploughing across the slope will make *insitu* soil moisture conservation.
- Earthing up operation is advised in long duration crops like redgram and castor to make a better availability of soil moisture to the crop.

North Interior Karnataka

- To manage leaf miner in groundnut crop which is at pod development to maturity stage by spraying systemic insecticides like Deltamethrin 02.80 % EC or Lambda-cyhalothrin 05 % EC @ 1ml per litre of water
- Provide irrigation to maintain optimum soil moisture in sunflower crop.

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