



राष्ट्रीय कृषि मौसम परामर्शी सेवाएं बुलेटिन
National Agromet Advisory Services Bulletin

जारी करने की तिथि /Date of issue: 21 August 2023

आधारित /based on

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

वैधता /Validity: 18 - 31 August 2023

जारीकर्ता /Issued by

अखिल भारतीय समन्वित कृषि-मौसम विज्ञान अनुसंधान परियोजना

AICRP on Agro-Meteorology (AICRPAM)

केंद्रीय बारानी कृषि अनुसंधान संस्थान

Central Research Institute for Dryland Agriculture (CRIDA)

भारतीय कृषि अनुसंधान परिषद

Indian Council of Agricultural Research (ICAR)

और

भारतीय मौसम विज्ञान विभाग

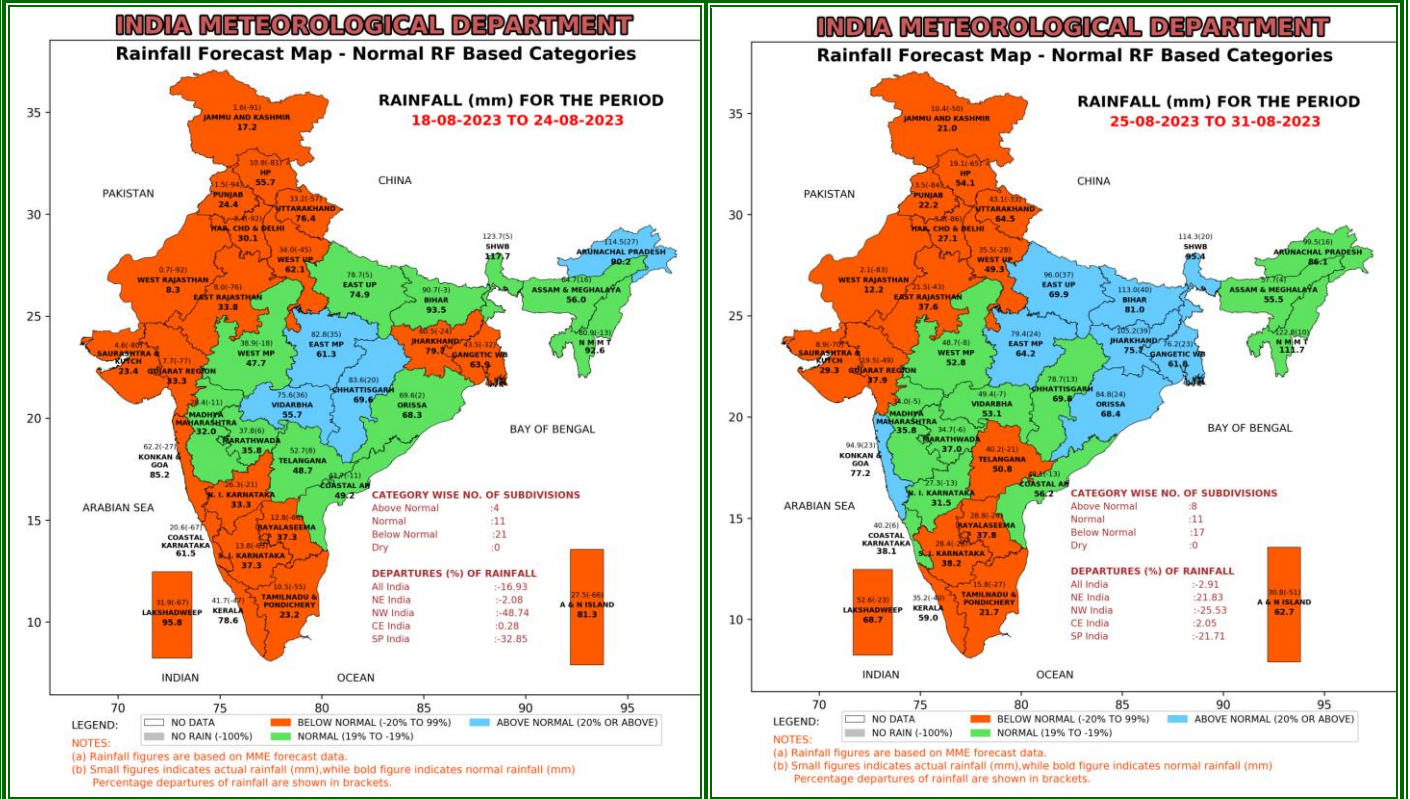
India Meteorological Department (IMD)

पृथ्वी प्रणाली विज्ञान संगठन

Earth System Science Organization

Extended Range Forecast System

Rainfall forecast maps for the next 2 weeks (IC- 16th August) (18th August to 31st August, 2023)



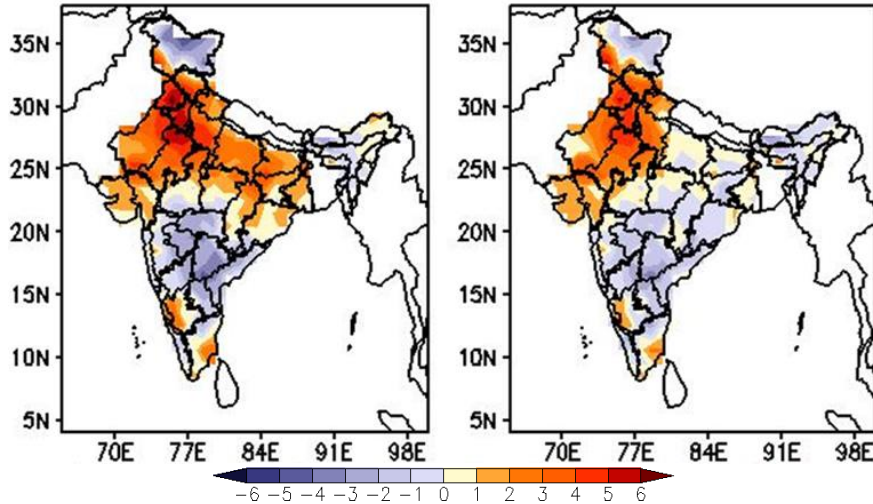
- **Week 1 (18.08.2023 to 24.08.2023):** Rainfall is likely to be below normal over most parts of the country except parts of Central and North East India.
- **Week 2 (25.08.2023 to 31.08.2023):** Rainfall is likely to be normal to above normal over Central, East & Northeast India and eastern Gangetic plains.

**Maximum and Minimum temperature anomaly ($^{\circ}\text{C}$) forecast
for the next 2 weeks (IC- 16th August)
(18th August to 31st August, 2023)**

MME forecast Tmax anomaly (Deg C)

(Week1: 18Aug–24Aug)

(Week2: 25Aug–31Aug)



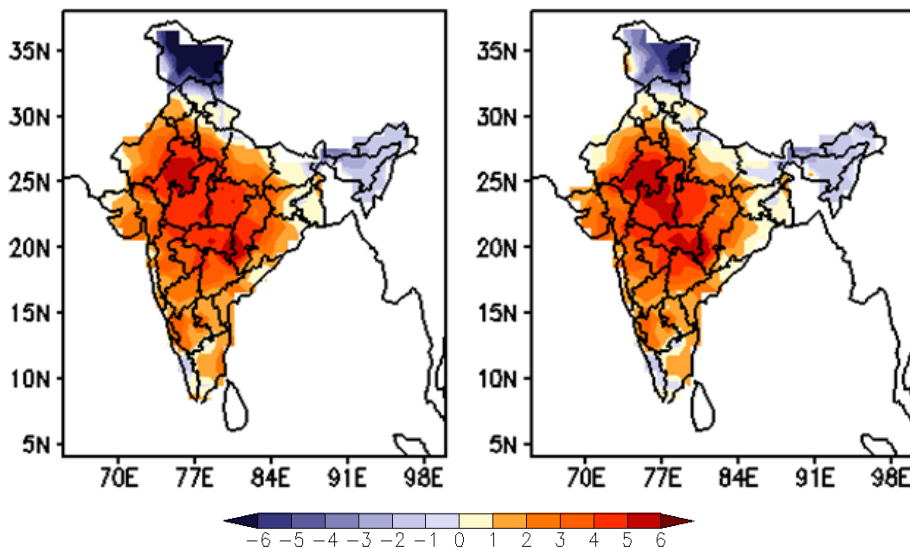
Maximum Temperature (Tmax)

- **Week 1 (18.08.2023 to 24.08.2023):** Tmax is likely to be above normal over most parts of North West India & Indo-Gangetic plains and some parts of Central & East India.
- **Week 2 (25.08.2023 to 31.08.2023):** Tmax is likely to be above normal over North West India and adjoining Central India.

MME forecast Tmin anomaly (Deg C)

(Week1: 18Aug–24Aug)

(Week2: 25Aug–31Aug)



Minimum Temperature (Tmin)

- **Week 1 (18.08.2023 to 24.08.2023) and Week 2 (25.08.2023 to 31.08.2023):** Tmin is likely to be above normal over most parts of the country.

Agromet Advisories

Uttar Pradesh

The amount of rainfall received over East Uttar Pradesh was 349 mm (-34% deficit) and over West Uttar Pradesh was 459 mm (1% excess) during 01 June - 17 August 2023. The extended range weather forecast (rainfall) for the next two weeks (18 - 24 August 2023 and 25 - 31 August 2023) is below normal over West Uttar Pradesh and normal over East Uttar Pradesh for week-1 and; below normal over West Uttar Pradesh and above normal over East Uttar Pradesh for week-2.

Western Uttar Pradesh

- During the last two weeks, no rainfall was observed and forecast of below normal rainfall during next week, farmers are advised to provide light irrigation in *kharif* crops like sorghum (vegetative stage), maize (tasselling stage), rice (tillering stage) etc.
- Under prevailing rainfall deficit conditions, farmers are advised for sowing of short duration pigeon pea varieties like *PDA-11*, *Pusa-9*, *Azad*, *Maveeya -2002*, *IPM 203*, *Narendra Arhar-2*, *Amar*, *Pusa-2* as early as possible.
- Due to lack of moisture and high temperature, there is a possibility of the occurrence of dry root rot or charcoal rot disease in groundnut. To prevent this, maintain proper moisture by irrigating.
- Under prevailing dry weather conditions, farmers are advised to bathe the animals during morning and evening, keep them under shade and provide water 3-4 times in a day.

Eastern Uttar Pradesh

- Under prevailing weather condition, farmers who want to establish new orchard gardens (mango, citrus and guava) are advised for transplanting of plants from recognized sources.
- If soil moisture is deficit in rice field which is at tillering/pre-flowering stage, farmers are advised for irrigation
- Under prevailing weather conditions, farmers are advised for weeding and hoeing in the standing crops and vegetables and also ensure proper drainage in all *kharif* crops.
- Transplanting of brinjal, tomato, chilli and early cauliflower on ridge is advised.

Uttarakhand

946 mm (14% excess) rainfall was received over Uttarakhand during 01 June - 17 August 2023. The extended range weather forecast (rainfall) provided for the next two weeks (18 - 24 August 2023 and 25 - 31 August 2023) over Uttarakhand is below normal for week-1 and; week-2.

- Due to heavy rainfall in last week, crop lodging and landslides have occurred. Farmers are advised to harvest the ripe crop/vegetables and store them in safe places and maintain the proper drainage.

- Due to heavy rains, pollens of pumpkin crop may be washed. In case of poor pollination, it is advised to go for hand pollination.
- Protect bee colonies from rain by reducing the entrance. Give need-based sugar feeding and protect bee hives from ants.
- In case of heavy rain in previous days, it is advised to reduce the feed supply to fish by 50 percent. Conduct regular fish pond water quality checks for impairments like dissolved oxygen, pH and nutrients during the current season.

Himachal Pradesh

734 mm (41% excess) rainfall was received over Himachal Pradesh during 01 June - 17 August 2023. The extended range weather forecast (rainfall) provided for the next two weeks (18 - 24 August 2023 and 25 - 31 August 2023) over Himachal Pradesh is below normal for week-1 and week-2.

- Heavy to very heavy rainfall has led to occurrences of landslides, cloudbursts, mudflows, and flooding in various regions of the state. As a consequence, a significant portion of the Kangra district, (downstream from the Pong Dam), is inundated due to the release of water. This has resulted in:
 - ✓ Damage to crops in almost all the districts of the state.
 - ✓ Significant damage to apple crop as well as other fruit trees in parts of the state (Kullu, Mandi, Shimla and Kinnaur districts)
 - The general public is cautioned not to go near the banks of rivers and drain out the excess water in maize, soybean and vegetable fields.
 - ✓ Excess rainfall in major paddy growing regions of the state caused damage to the paddy crops in multiple locations. To mitigate this, it is advised to regulate water levels by draining excess water. For transplanted rice, it is recommended to apply the initial nitrogen topdressing using 65 kg of urea per hectare. In the case of directly seeded crops, this quantity can be decreased to 45 kg of urea per hectare.
- Sowing of rainy season vegetables is advised. Recommended varieties of radish (*Japanese White & Chinese Pink*), Turnip (*PTWG*), Carrot (*Nantes, Pusa Kesar and Pusa Yamdagni*), spinach (*Pusa Harit, All Green, Pusa Bharti and Benerjee Giant*), cauliflower (*Palam Uphar, Pusa Deepali, F1 Megha, F1 Barkha and F1 White Excel*)

Jammu

436 mm (13% excess) rainfall was received over Jammu during 01 June - 17 August 2023. The extended range weather forecast (rainfall) provided for the next two weeks (18 - 24 August 2023 and 25 - 31 August 2023) over Jammu is below normal for week-1 and; week-2.

- Monitor the rice fields for thread worm infestation. If observed, then it is advised to apply Carbofuran 3G @ 20 kg/ha. It is also advised to apply a second dose of nitrogenous fertilizer in 25-30 days old crop as top dressing during clear weather.
- To control stem borer in maize crop (knee height stage), it is advised to apply Carbofuran granules @ 8kg/acre (4-5 granules per plant) during clear weather only.

Punjab

332 mm (7% excess) rainfall was received over Punjab during 01 June - 17 August 2023. The extended range weather forecast (rainfall) provided for the next two weeks (18 - 24 August 2023 and 25 - 31 August 2023) over Punjab is below normal for week-1 and; week-2.

- Due to the forecast of below normal rainfall, farmers are advised to apply for need based irrigation and application of pesticides to the kharif crop.
- Its highly suitable period for planting of *citrus, guava, mango, litchi, sapota, jamun, bael, amla* etc.
- To control jassid in cotton, it is advised to spray Flonicamid 50 % WG @ or Imidacloprid 17.80 % SL 3 ml per 10 litres of water.

Rajasthan

460 mm (3% excess) rainfall was received over East Rajasthan during 01 June - 17 August 2023. The extended range weather forecast (rainfall) provided for the next two weeks (18 - 24 August 2023 and 25 - 31 August 2023) over East Rajasthan is below normal for week-1 and; week-2.

- Farmers are advised to follow plant protection measures in *kharif* crops when the weather is clear or ensure that there is no rain for at least 2 to 3 hours after spraying the insecticide.
- Under prevailing weather conditions, farmers are advised for transplanting of chilli, brinjal and early cauliflower in a raised bed.
- For the control of yellow mosaic virus in soybean, it is advised to spray Dimethoate 30 EC 1 ml per litre of water and repeat the spray after 15 days intervals, if the pest is noticed.

Hisar

353 mm (20% excess) rainfall was received over Hisar during 01 June - 17 August 2023. The extended range weather forecast (rainfall) provided for the next two weeks (18 - 24 August 2023 and 25 - 31 August 2023) over Hisar is below normal for week-1 and; week-2.

- Farmers are advised to apply fertilizers/herbicides in rice crops which is at vegetative stage as recommended by CCS HAU, Hisar and apply need-based irrigation for maintenance of proper moisture.
- Due to possibility of dry weather condition, farmers are advised to spray pesticide and fungicide in cotton and pearl millet crop for management of insects and diseases and apply irrigation.

Assam

1054 mm (-16% deficit) rainfall was received over Assam during 01 June - 17 August 2023. The extended range weather forecast (rainfall) provided for the next two weeks (18 - 24 August 2023 and 25 - 31 August 2023) over Assam is normal for week-1 and week-2.

- Due to flood/inundation situation in some districts of the state, farmers are advised to download “MAUSAM” app for weather forecast and “DAMINI” app for lightning alert, intending to help save lives of humans as well as livestock. Provide staking to vegetable crop and drain out excess amount of water from low lying crop field.
- Sowing of early varieties of cauliflower like *Early Kunwari*, *Pusa Katki* and *Pusa Deepali* is advised to sow in nurseries under polyhouse condition. Prior to sowing, it is advised to treat the seeds with Carboxin or Nabam @ 3g/kg seeds.
- Nursery raising of short duration (90-100 days) Sali rice varieties viz., *Luit*, *Kopilee* and *Dishang* is advised for areas where the sali rice crop was totally damaged or for those farmers who have not yet started its cultivation due to insufficient standing water in the field.

West Bengal

553 mm (-29% deficit) rainfall received over Gangetic West Bengal and rainfall received over Sub Himalayan West Bengal was 1429 mm (11% excess) during 01 June - 17 August 2023. The extended range weather forecast (rainfall) for the next two weeks (18 - 24 August 2023 and 25 - 31 August 2023) is below normal over Gangetic West Bengal and normal over Sub-Himalayan West Bengal during week-1 and; above normal over Gangetic West Bengal and Sub-Himalayan West Bengal for week-2.

- Harvesting of jute crop is advised. Tie them together in bundle, and soak in still water for the process of retting. CRIJAF SONA can be used for enhanced retting developed by ICAR CRIJAF.
- Frequent irrigation is advised in early transplanted short duration rice (Milking to Dough stage) and late transplanted (panicle initiation stage) rice field.

Jharkhand

426 mm (-37% deficit) rainfall was received over Jharkhand during 01 June - 17 August 2023. The extended range weather forecast (rainfall) provided for the next two weeks (18 - 24 August 2023 and 25 - 31 August 2023) over Jharkhand is below normal for week-1 and above normal for week-2.

- State recorded 37 percent less rainfall than normal, due to which agriculture is greatly affected and there is a situation of drought. Farmers are advised to use mulching to save soil moisture in standing crops.
- Under prevailing rainfall deficit condition, it is advised to keep the bunds of the crop field well maintain to accumulate water in paddy crops.

Chhattisgarh

642 mm (-17% deficit) rainfall was received over Chhattisgarh during 01 June - 17 August 2023. The extended range weather forecast (rainfall) provided for the next two weeks (18 - 24 August 2023 and 25 - 31 August 2023) over Chhattisgarh is above normal for week-1 and; normal for week-2.

- Wherever, transplanting of rice is not yet completed, it is advised to complete the transplanting at the earliest with 4-5 seedlings per hill and 10% additional dose of fertilizer to compensate the adverse effect of delayed transplanting to reduce the production loss.
- For the management of Girdle beetle in soybean, it is advised to spray the crop with Profenofos 50 % EC 1.5ml/liter water or Thiacloprid 21.7 SC @ 750 ml/ha.
- After 35-40 days of second weeding in groundnut, earthing up is advised.

Odisha

681 mm (-10% deficit) rainfall received over Odisha during 01 June - 17 August 2023. The extended range weather forecast (rainfall) provided for the next two weeks (18 - 24 August 2023 and 25 - 31 August 2023) over Odisha is normal for week-1 and; above normal for week-2.

- Farmers are advised to repair water harvesting structure, field bunds to store excess rain water for utilization in case of early or mid-season droughts.
- To the forecast of moderate to heavy rainfall during next two week, it is advised to cover the vegetable nursery with polythene to protect it from heavy rain and make drainage arrangements.
- Provide adequate drainage channels to avoid water logging in the pigeon pea fields. There are chances of leaf webber infestation in pigeon pea crop. To manage leaf webber in pigeon pea spray Indoxacarb 14.50 % SC @0.5ml per liter of water or Lambda-cyhalothrin 05 % EC@1ml per liter of water.
- August and September are the optimum time for tomato planting. Recommended tomato varieties are *Utkal Kumari (BT-10)*, *Utkal Deepti (BT-2)*, *Utkal Raja*, *Utkal Pragyan* and *Swarna Sampad*.
- Farmers are advised to complete all inter-culture operation in groundnut, before start of flowering, else it will damage the peg formation and there will be substantial reduction in yield.

Gujarat

651 mm (-3% deficit) rainfall received over Gujarat during 01 June - 17 August 2023. The extended range weather forecast (rainfall) provided for the next two weeks (18 - 24 August 2023 and 25 - 31 August 2023) over Gujarat is below normal for week-1 and week-2.

- To minimize the population of whitefly in brinjal, it is advised to spray 500 ml of 5% neem seed extract or neem oil 50 ml with Diafenthiuron 50 WP @ 1 gram per litre of water. Thiamethoxam 25 % WG @2gram per liter of water (Apply first spray during initial

appearance of pest and repeat the spray at 15 interval depending on the level of pest intensity)

- To control leaf blight and stem rot in sesame crop at vegetative stage, it is advised to spray Copper Oxychloride 50% WP 40 g or Mancozeb 75 % WP 25 ml in 10 litres of water.

Maharashtra

425 mm (-17% deficit) rainfall over Madhya Maharashtra; 572 mm (-13% deficit) rainfall over Vidarbha; 343 mm (-14% deficit) rainfall over Marathwada; and 2486 mm (11% excess) in Konkan region was recorded during 01 June - 17 August 2023. The extended range weather forecast (rainfall) for the next two weeks (18 - 24 August 2023 and 25 - 31 August 2023) is below normal over Konkan, normal over Madhya Maharashtra, Marathwada and above normal over Vidarbha for week-1 and; above normal over Konkan and normal over Marathwada, Vidarbha and Madhya Maharashtra for week-2, respectively.

Vidarbha

- In early sown *kharif* crops, inter culture operation (weeding/hoeing) is advised during clear weather for the management of weeds and improve soil aeration.
- For the management of early stage incidence of aphids/jassids in cotton, application of 5% neem extract or Azadirachtin 0.03% (300 ppm) @ 50 ml per 10 litres of water is advised.
- In sheep and goat, preventive vaccination for Bulkandi disease (Rinderpest) is advisable.

Madhya Maharashtra

- Hoeing and nipping in early sown pigeon pea (40-45 DAS) was advised.
- Due to prolonged dry spell, if soybean crop is under water stress, then it is advised to irrigate the the crop at sensitive stage or spray the crop with 13:00:45 (Potassium Nitrate@ 100 g/10 litre of water).
- Under prevailing hot and humid weather condition, there is possibility of incidence of white flies. Thus, to control it is advised to spray the crop with 5% Neem Seed Kernel Extract. Use sticky traps @ 20 to 25 per acre during rainy period.

Parbhani

- If water stress is observed in *kharif* crops, irrigation management is advised with the help of drip irrigation system as per the availability of water.
- Due to dry spell and cloudy weather condition, sucking pests may increase in cotton crop. To manage, it is advised to spray 5% NSKE or Diafenthiuron 50 WP @ 1 gram per liter of water or Acetamiprid 20% @ 2 g per 10 litres of water during clear weather condition.
- Due to dry spell, if water stress condition is observed in *kharif* crop then it is advised to spray 1% (100 g/10 litres of water) Potassium nitrate (13:00:45).

- Light hoeing is advised in pulse crops for weed management and for soil moisture conservation.
- Due to current humid and cloudy weather conditions, aphids may be observed in black gram / green gram. For management, it is advised to spray 5% NSKE or Dimethoate 30% EC @ 1ml per litre of water during clear weather conditions.

Kerala

878 mm (-45% deficit) received over Kerala during 01 June - 17 August 2023. The extended range weather forecast (rainfall) for the next two weeks (18 - 24 August 2023 and 25 - 31 August 2023) is below normal for week-1 and; week-2.

- To control bud rot in coconut, it is advised to cut and remove the affected portion and apply 10% Bordeaux paste on affected portion and protect from rain.
- As a prophylactic measure to control quick wilt of pepper, it is advised to add 2 kg Trichoderma to a mixture of 90 kg FYM and 10 kg neem cake and kept for two weeks with sufficient moisture. Add 2.5 kg of this mixture to the base of each matured pepper vine.
- During rainy season, there is a chance of Rhizome rot in banana. To prevent, it is advised to ensure proper drainage facilities and drench the basin with three litre of *pseudomonas* solution (20 g per one litre of water).

Tamil Nadu

166 mm (1% excess) received over Tamil Nadu during 01 June - 17 August 2023. The extended range weather forecast (rainfall) for the next two weeks (18 - 24 August 2023 and 25 - 31 August 2023) is below normal for week-1 and; week-2.

- Weather prevailed is conducive for stem borer incidence in rice (tillering to panicle initiation stage). To control, it is advised to spray Chlorantraniliprole 18.5% SC @150 ml/ha or Azadirachtin 0.03% 1000 ml/ha or spray Cartap Hydrochloride 50 % SP @1gram per liter of water
- To avoid lodging in banana at vegetative to bunch formation stage, propping and earthing-up operation is advised.

Anantapur

161 mm (-26% deficit) rainfall was received over Rayalaseema and 336 mm (-7% deficit) rainfall was received over Coastal Andhra Pradesh during 01 June - 17 August 2023. The extended range weather forecast (rainfall) provided for the next two weeks (18 - 24 August 2023 and 25 - 31 August 2023) is below normal over Rayalaseema and normal over Coastal Andhra Pradesh for week-1 and; week-2.

- Due to prevailing rainfall deficit condition and forecast of below norm rainfall, farmers are advised to take up sowing of contingency crops like bajra, foxtail millet and cowpea under sufficient moisture condition.
- Red gram crop is at vegetative stage, farmers are advised to take up intercultural operations in red gram at 30 to 60 days after sowing.
- The present weather conditions are favourable for sucking pests in groundnut (vegetative stage) grown in Ananthapuramu, Kurnool, Kadapa and Chittoor districts. To control, farmers are advised to spray Imidacloprid @ 0.3 ml/litre or Lambda-cyhalothrin 05 % EC @ 1ml litre of water.
- Farmers growing pearl millet are advised to select bajra varieties viz., *ABV-04*, *Raj-171*, *Pusa-61* and *PSV-56* and treat the seeds with Thiram or Captan @ 3g/kg of seed.

Karnataka

348 mm (-24% deficit) rainfall received over South Interior Karnataka, 2179 mm (-13% deficit) over Coastal Karnataka and 285 mm (-2% deficit) rainfall received over North Interior Karnataka during 01 June - 17 August 2023. The extended range weather forecast (rainfall) provided for the next two weeks (18 - 24 August 2023 and 25 - 31 August 2023) is below normal over North Interior Karnataka, Coastal Karnataka and South Interior Karnataka for week-1 and; normal over North Interior Karnataka and Coastal Karnataka and below normal over South Interior Karnataka for week-2.

South Interior Karnataka

- Earthing up is advised in long duration crops like red gram and castor for better availability of soil moisture to the crop rows through conversion of the land into ridges and furrow system.
- Due to rainfall deficit condition, lack of soil moisture observed in *kharif* crop field. Farmers are advised for intercultural operation recommended for conserve the soil moisture and remove of weeds.
- Mulching is recommended to conserve the soil moisture due to dry spells over the *kharif* crops.

North Interior Karnataka

- To manage sucking pests in citrus crop, spraying of 0.3 ml Imidacloprid or spray with 3 per cent biodigester is advised.
- Earthing up in sugar cane crop is advised to ensure optimum plant density and higher yields.

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