All India Coordinated Research Project on Agrometeorology अखिल भारतीय समन्वित कृषि-मौसम विज्ञान अनुसंधान परियोजना

(AICRPAM) केंद्रीय बारानी कृषि अनुसंधान संस्थान

ICAR-Central Research Institute for Dryland Agriculture, Hyderabad, Telangana – 500059

अप्रैल 2024 के दौरान जारी मौसम की स्थिति और कृषि मौसम संबंधी सलाह

Weather conditions and Agromet advisories issued during April 2024

1. सामान्य मौसम की स्थिति

1. General Weather Conditions

01 मार्च - 01 मई 2024 के दौरान, पूरे देश में 61 मिमी वर्षा हुई है, जो इसी अवधि के लिए सामान्य वर्षा (71 मिमी) की तुलना में -14% कम है। 36 मौसम संबंधी उप-प्रभागों में से 06, 02, 09, 12 और 07 उप-प्रभागों में वर्षा क्रमशः बहुत अधिक, अधिक, सामान्य, कम और बहुत कम थी, जैसा कि चित्र 1 में दर्शाया गया है।

During 01 March - 01 May 2024, the country as a whole received 61 mm of rainfall, which is -14% deficit, compared to the normal rainfall (71 mm) for the same period. Out of 36 meteorological sub-divisions, rainfall was large excess, excess, normal, deficient and large deficient in 06, 02, 09, 12 and 07 sub-division(s), respectively as depicted in Fig. 1.



Fig. 1: Seasonal rainfall status (01 March - 01 May 2024) in 36 meteorological sub-divisions, India

1. Agromet advisories issued by AICRPAM centers during April 2024

Date of issue	Advisory issued for the region	Agromet Advisory issued
		• As per forecast weather will be mainly dry and hot this week, therefore farmers are advised to harvest mature wheat, mustard and barley crops and after drying tying bundles and threshing is advised.
	Western Uttar Pradesh	• Due to high day and night temperatures during this week, there is a chance of pod borer in the gram crop. To manage, it is advised to spray Fenvalerate 20% EC @ 2.0 litres or Novaluron 10% EC @ 750 ml/ ha with 500 to 600 litres of water solution in clear sky weather.
		• Farmers are advised to prepare the nursery of the following vegetables in polytubes for planting in the coming days
	Himachal Pradesh	• Cucumber: Poinsette, Long Green and Hybrids: Malini, 243 Malav, Mathura, Maharaja, Amrit and US-6125.
05-04-2024		• Summer Squash: Pusa Alankar and Australian Green.
05-04-2024		• Bitter Gourd: Solan Hara, Solan Safed and Hybrids: F1 Chaman and F1 Palli.
		• Bottle Gourd: Pusa Manjri, Pusa Meghdoot, PSPL and Warad
		• The prevailing weather is conducive to the development of yellow rust disease in wheat. Farmers are advised to use Propiconazole 0.1% (1 ml/litre water) on the appearance of symptoms and repeat the spray after 15 days.
		• Under assured irrigation facilities, farmers are advised to cultivate summer moong after harvesting of rabi crop. Use improved varieties-MML-688, HUM-16, IPM-2, 3. Use 8 to 10 kg seeds per acre.
	Jharkhand	• High temperature followed by intermittent thundershowers is favourable for Brown Plant hopper infestation in rice. If infestation exceeds ETL, it is advised to alter the micro-climate of the rice plant by alternate wetting and drying techniques. If the problem still persists, then spray Azadirachtin 0.15%

		neem seed kernel formulation @ 800 ml in 200 litres of water for one acre.
	Haryana	 Due to the forecast of below-normal rainfall, farmers are advised for need-based irrigation in late-sown wheat crops and application of fertilizers. Due to the possibility of dry weather, farmers are advised to spray recommended chemicals to control mustard aphids, white rust and Alternaria blight diseases in mustard crops.
	Parbhani	 Below normal soil moisture status and thermal stress in crops due to an increase in minimum and maximum temperature. To manage this, water conservation agronomic techniques, need to be adopted and light irrigation to be applied in rabi crops wherever required. To control borer insects in okra and brinjal, it is advised to use pheromone traps @ 10 nos/acre and destroy the upper portion of affected plants.
	Assam	 In areas with heavy to medium textured soils and having assured irrigation facilities, farmers are advised to continue nursery sowing of ahu rice seeds. Select seeds of recommended semi-dwarf varieties like <i>IR-36, Lachit, Chilarai, Dishang</i> etc. for obtaining higher yield. To control the infestation of stem borer and leaf folder in the rice crop, spraying of Imidacloprid 70 WG (@ 2 ml per litre of water is advocated under fair weather conditions.
12-04-2024	Jammu	 Due to the chances of rainfall this week, farmers are advised to avoid irrigation in late-sown wheat crops which are at the hard dough stage. If possible, raise artificial shelter belts in the field using plant residue to reduce the speed of the wind. Harvest mature pea crop immediately to prevent shattering of pods. Cover the harvested crop with polythene sheets/ Tarpaulin. Do not let rainwater stagnate in fields.
	West Bengal	 As there is a forecast of below-normal rainfall, one irrigation may be given to boro rice (anthesis stage) this week, if cracking appears in the soil. Farmers may apply fertilizers and pesticides this week as below-normal rainfall is forecasted. Irrigation may be also given wherever needed, especially in green gram and summer vegetables.

	Eastern Uttar Pradesh	• For the control of mango fruit fly, spraying of Imidacloprid 30.5 per cent SC (0.3 ml per litre) and Prophenophos 50 per cent EC. Making a solution (01 ml per litre) in water is advised.
		 Summers deep ploughing is advised to open up the field that is required for exposure of insect eggs and pupa and weed seeds towards sunlight. Intercultural operations and hand beging are advised.
	Rajasthan	• Intercultural operations and hand hoeing are advised to control weed infestation and proper pegging.
19-04-2024		• Due to the forecast of below-normal rainfall and an increase in temperature, farmers are advised to irrigate standing vegetable crops like bhindi, brinjal, tomato, chilli and cucurbits as per requirement.
	Punjab	• 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 Difenoconazole 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.
	Chhattisgarh	 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. Inter-culture, fertilizer application, and earthing
		followed by irrigation are advised in sugarcane crops at knee height stage.

	Gujarat	 Due to no rainfall forecast in this week, farmers are advised to apply irrigation at critical stages (tillering, flag leaf and flowering) of summer pearl millet as per soil moisture conditions. Sudden increase in temperature with relative humidity favours the population growth of thrips in mango. For management, spraying of Tolfenpyrad 15 EC @ 20 ml/10 litres water is recommended.
26-04-2024	Odisha	 Prevailing heat wave conditions is very crucial for fruit growth in Mango orchard (marble stage) and water scarcity at this stage may lead to poor fruit development therefore farmers are advised to maintain moisture by applying irrigation at 10-15 days intervals at early morning or evening hours. Due to forecast of below normal rainfall, mulching of leaves around newly planted cashew nut plants is advised to conserve moisture. Irrigate 20 to 25 litres per plant. Use a temporary shade net to protect the fruit plants from high temperatures. The increasing day temperature may cause bacterial wilt disease in tomatoes and brinjal. To protect, it is advised to spray 1 gram of Streptocycline in 10 litres of water in the root zone. Prolonged dry spell followed by rain may increase the infestation of fall armyworms in maize. To control this spray Emamectin benzoate 5% SG @0.4 g or Isocycloseram 18.1% W/W SC @0.6 ml/litres of water. Under prevailing dry weather conditions, farmers are advised to drip and sprinkler irrigation practices wherever possible in the event of limited water availability particularly for commercial crops including fruit orchards and widely spaced vegetables. Sprinkler irrigation brings down the heat effect. For row crops alternate rows may be irrigated. 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.

	Jharkhand	 Due to abnormal rise in temperature and forecast of no rainfall in this week, farmers are advised to irrigate the vegetable crops, field crops and fruit trees. Due to heat wave condition prevailing, farmers are advised to cover the vegetables nursery with straw to protect the plants from excessive heat and to conserve moisture. Keeping in view the difference in temperature between day and night, farmers are advised to monitor the blast disease in the paddy crop. If the outbreak is observed, then it is advised to spray the solution of Tricyclazole at 0.5 g per litre of water.
26-04-2024	West Bengal	 Due to heat wave condition and forecast of no rainfall, 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 advised to keep under irrigation. Those farmers have sown the jute crop between the last week of March to first week of April (crop age, 3 weeks); apply one light irrigation followed by (after 2-3 days depending on soil moisture condition) because there is no rainfall forecast. Mulch material-like residue may be used to conserve moisture and prevent soil from cracking. Due to prevailing hot and dry weather condition, farmers are advised to keep the cattles under shade during day time. Electrolyte mixed water is advised to avoid dehydration
	Western & Eastern Uttar Pradesh	 As forecast of below normal rainfall, farmers are advised to irrigate and maintain moisture in green gram and black gram crop (vegetative stage) as per requirement because this is the growth period of green gram and black gram. Due to forecast of no rainfall in this week and heat wave condition, farmers are advised for frequent irrigation in vegetables, nurseries of vegetables, fodder crops and orchards. Farmers are also advised to protect vegetables nurseries and orchards against hot winds by physical barrier.
	Konkan	 As a forecast of above normal temperature and heat wave conditions is prevailing and during this week: Farmers are advised to provide irrigation to newly planted orchards as per requirement. Apply straw mulch to reduce evaporation losses in orchards and vegetables. Cover the roof of the animal sheds with materials such as paddy straw, dry coconut leaves and make-arrangements to sprinkle water on the roof of the shed

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		 during afternoon time. As dry condition is likely to prevail, farmers are advised to maintain 7-10 cm water level in summer rice fields.
26-04-2024	Parbhani	 As thunderstorm accompanied with lightning and gusty winds and light to moderate rainfall is expected over the region, hail at isolated places is also expected. Farmers are advised to keep harvested turmeric at safer places. As per forecast of light to moderate rain at isolated places, harvesting of matured onion, watermelon, muskmelon, grapes, mango and sapota at the earliest is advised and keep harvested produce at safer places. Due to gusty wind, thunderstorm, hail and rainfall was observed at isolated places in the Marathwada region. farmers are advised to provide mechanical support to newly planted orchards and vegetables. For moisture conservation and maintenance of soil temperature mulching is advised in banana orchards. Irrigation should be done during early in the morning or at evening hours with the help of drip irrigation system.
	Vidarbha	 As rainfall is expected only at isolated places, farmers are advised to apply need-based light and frequent irrigation to summer groundnut, sesame, sunflower, green gram, vegetables and orchards. Due to the forecast of above-normal rainfall, and thunderstorms accompanied by lightning, farmers are advised to harvest matured vegetables and fruits at the earliest and keep harvested produce at safer places. And, also provide mechanical support to newly planted orchards and vegetables. For control of fruit drop in mandarin orange/sweet orange/acid lime spray, it is advised to apply Gibberellic acid @ 1.5 g or NAA @ 1 g + 1 kg urea + Carbendazim 0.1% (100 g) per 100 litres of water.
	Andhra Pradesh	 Due to the forecast of no rainfall and heat wave conditions, farmers are advised to apply light and frequent irrigation to the standing groundnut crop which is at the flowering stage (critical stage) also advised to increase the frequency of irrigation at critical growth stages. Mulching is advised for various crops like sugarcane, sweet orange, mango, and pomegranate with crop residue, straw, and groundnut shell to conserve soil moisture. Irrigate only during the early morning and evening hours.

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		 Due to heatwave conditions, provide irrigation to various crops like sugarcane, fruit orchards viz., sweet orange, mango, and pomegranate, at regular intervals. And, also use drip irrigation wherever facilities are available, to reduce the water loss in high temperatures. 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 the age of the plant 10-15 liters 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 Cyantraniliprole 10.26% OD @ 1.2 ml or Imidacloprid 17.80 % SL @ 0.5 ml per liter of water
	Tamil Nadu	 Due to increased temperature, provide propping to bananas more than five months old to prevent them from lodging. Due to the forecast of below-normal rainfall, farmers are advised to irrigate the rice (flowering to panicle initiation stage) and black gram crop (vegetative stage) and apply fertilizer. Since continuous dry weather prevailed in some parts of the district is favorable for the early shoot borer attack in sugarcane. Hence, farmers are requested to do irrigation frequently and mulching if rain does not occur. Since continuous dry weather prevailed in some parts of the district is favorable for the early shoot borer attack in sugarcane. Hence, farmers are requested to do irrigation frequently and mulching if rain does not occur. Since continuous dry weather prevailed in some parts of the district is favourable for the early shoot borer attack in sugarcane hence farmers are requested to do irrigation frequently and mulching if rain not occur. Higher temperature along with higher relative humidity favours the incidence of red spider mites in brinjal (vegetative stage). To manage red spider mite, it is advised to spray wettable Sulphur 80 WG @ 40 g per acre or Propargite 57 EC @ 400 ml per acre.