

All India Coordinated Research Project on Agrometeorology (AICRPAM)

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

Weather conditions and Agromet advisories issued during January 2023

1. General Weather Conditions

During 01 January - 31 January 2023, the country as a whole received 15 mm rainfall, which is -13% deficit, compared to the normal rainfall (17 mm) for the same period. Out of 36 meteorological sub-divisions, rainfall was large excess, excess, normal, deficient, large deficient and no rainfall in 05, 01, 05, 05, 17 and 03 sub-division(s), respectively as depicted in Fig. 1.

During the month of January, cold day conditions had occurred at isolated places over East & West Rajasthan, Haryana, Chandigarh & Delhi, Punjab, Himachal Pradesh, UP, Jharkhand and Bihar. The lowest minimum temperature of -2.7°C had been recorded at Churu (West Rajasthan) on 17 January 2023 over the plains of the country.

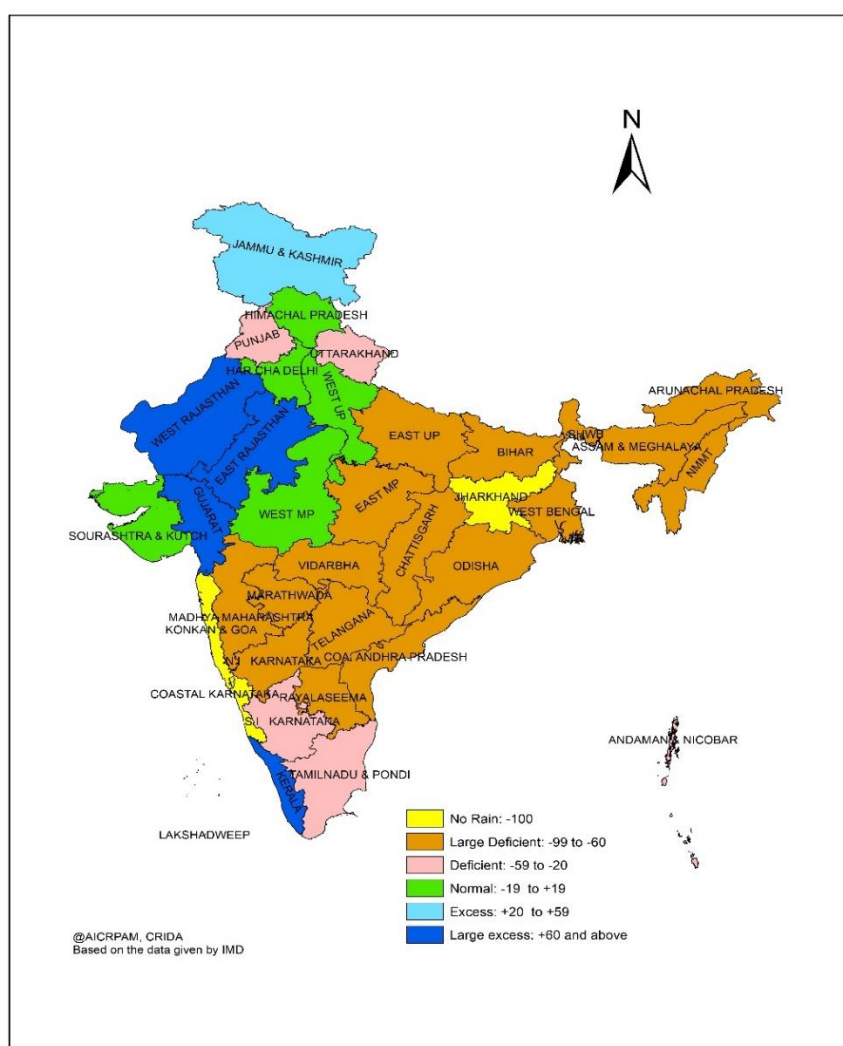


Fig. 1: Monthly rainfall status (01 January - 31 January 2023) in 36 meteorological sub-divisions, India

2. Agromet advisories issued by AICRPAM centers during January 2023

Date of issue	Advisory issued for the region	Agromet Advisory issued
06-01-2023	Marathwada	<ul style="list-style-type: none"> Due to variation in maximum and minimum temperature, irrigation management is advised to avoid berry cracking in grapes.
	Madhya Maharashtra	<ul style="list-style-type: none"> Spraying of 1% KNO₃ is advised under moisture stress condition in <i>rabi</i> crops.
	Odisha	<ul style="list-style-type: none"> To protect the paddy nursery from low temperature, it is advised to apply a thin layer of well decomposed FYM in wet bed to keep the bed relatively warm.
	Assam	<ul style="list-style-type: none"> Low night temperature coupled with dense fog is favorable for aphid infestation in rapeseed. To control aphid attack, it is advised to spray Thiamethoxam 25 WG @ 3 g per 10 litres of water.
13-01-2023	Western Uttar Pradesh	<ul style="list-style-type: none"> To prevent the flower-drop in pulses due to frost, it is advised to spray the crop with Thiourea @ 500 ppm (500 g in 1000 litre water) and repeat the spray after 15 days if low temperature conditions persist/recurs. To prevent the damage in onion nursery due to cold wave, farmers are advised to cover the nursery with plastic mulches that increase heat transfer into the soil improve heat storage and hence provide better freeze protection.
	Punjab	<ul style="list-style-type: none"> Due to the cold wave, there is no significant damage observed in crops. If needed, farmers are advised to provide light and frequent irrigations to protect the crop from cold wave. To reduce the heat loss from the surface, mulching is advised in vegetable crops like cauliflower, radish, turnip, pea, tomato, brinjal, chilli and capsicum.
	Himachal Pradesh	<ul style="list-style-type: none"> In some parts of the state, particularly in Una district, cold wave is prevailing and it caused damage to the wheat and other crops growing in the field. To protect these crops farmers are advised for frequent and light irrigations. Also, the crops can be saved by producing smoke in the fields by burning vegetative material. Due to sharp decline in the temperature over the past few days which may result in the incidence of frost causing adverse effect on horticultural crops. Farmers are advised to cover the small horticulture plants with grass to avoid cold paralysis.

13-01-2023	Haryana	<ul style="list-style-type: none"> • Due to decrease in low night temperature, farmers are advised to apply the light irrigation to vegetable crop and newly planted fruit crops to avoid the impact of low temperature. • Top protect the animals from cold temperature, keep the animal under shed and provide dry and clean bedding during night.
	Bihar	<ul style="list-style-type: none"> • Due to decrease in low night temperature, farmers are advised to apply the light irrigation to vegetable crop and newly planted fruit crops to avoid the impact of low temperature. • Top protect the animals from cold temperature, keep the animal under shed and provide dry and clean bedding during night.
	Jharkhand	<ul style="list-style-type: none"> • Due to prevailing low temperature, it is advised to irrigate the standing crops to maintain the moisture level as moisture keeps the soil relatively warm and protects it from frost. • To protect cold sensitive crops like mustard, potato, gram, lentils, late leafy vegetables, brinjal, capsicum, tomato from frost in pre-flowering stage, it is advised to spray Thiourea @ 5 g per 10 liters of water. • To protect the young saplings of garden trees from cold injury, it is advised to cover them with polythene or paddy straw.
	Assam	<ul style="list-style-type: none"> • As the night temperature recorded below the 10 °C during last week, which is not favorable for germination of the maize seed. Therefore, farmers are requested to postpone the sowing until the night temperature becomes favorable for the germination of maize seed. • To protect the banana bunches from low temperature stress, it is advised that to cover them with white polythene bags.
	Uttarakhand	<ul style="list-style-type: none"> • To protect the animals from low temperature, it is advised to provide them dry bedding and proper arrangement of the shed and also provide lukewarm water with the addition of common salt to the animal.
	Jammu	<ul style="list-style-type: none"> • To protect the mustard crop from low temperature/ frost, it is advised to create smoggy condition around the mustard field to increase temperature of surroundings. • It is advised to provide thatching to young horticultural and floricultural plants to protect them from low temperature.

20-01-2023	Konkan	<ul style="list-style-type: none"> • Due to fall in minimum temperature, provide irrigation to nursery, new fruit crop plantation and vegetable crops during evening hours. • Protect the poultry birds from low temperature by providing curtains and electric bulbs during night time.
	South Interior Karnataka	<ul style="list-style-type: none"> • As the sudden drop in minimum temperature may affect the floral induction in mango, spray Paclobutrazol as plant growth retardant which restrict the vegetative growth.
	Madhya Pradesh	<ul style="list-style-type: none"> • To protect the standing crops from cold injury, it is advised to apply light and frequent irrigation / sprinkler irrigation in vegetables and pulses during evening hours in northern gird zone, Bundelkhand, and eastern parts of the state. • Due to high dew formation, spread of early and late blight disease may occur in potato crop. To control, spraying of Dithane (Mancozeb) @ 2.5 g /litre water is advised.
	North Interior Karnataka	<ul style="list-style-type: none"> • For the management of sucking pests in safflower, spraying of 0.2 g Thiamethoxam 25 WC or 1 g Acephate 75 SP dissolved in one liter of water is advised.
27-01-2023	Kerala	<ul style="list-style-type: none"> • Under prevailing weather condition, there is a chance of anthracnose disease in cowpea. As a prophylactic measure, apply 1% Bordeaux mixture or spray pseudomonas @ 20 g per litre.
	Anantapur	<ul style="list-style-type: none"> • In Chittoor, Vizianagaram, West Godavari, Krishna, Ananthapuramu and Kadapa districts, present weather conditions are favourable for incidence of hoppers in mango. To control it, spraying of Dimethoate@ 2ml/litre or Chlorpyrifos @2.5ml/litre of water is recommended.
	West Bengal	<ul style="list-style-type: none"> • Irrigation is advised to upland vegetables (carrot, radish, onion, brinjal etc.) and chick pea crop.
	Gujarat	<ul style="list-style-type: none"> • For the management of wilt disease in brinjal, application of 750 g Trichoderma with 15 kg FYM for one acre is advised and install yellow sticky traps and blue sticky traps for sucking pests.