

NORMALLY EXPECTED WEATHER DURING OCTOBER, 2012

October is the transition month between the summer and winter weather systems. In general, October is considered as the driest month of the Rabi season. However, a few falls of light and moderate rain are expected over northern Balochistan, upper divisions of Khyber Pakhtoonkhawa, sub-mountainous areas of Punjab and Kashmir due to incursion of moisture from the westerly troughs. Quantitatively, northern Punjab and Khyber Pakhtoonkhawa is expected to receive 30 to 100 mm of rainfall. Rest of the country would remain practically dry as amount of rainfall is not likely to exceed 10 mm.

The probability of occurrence of rainfall is given below:

Amount / Dates	PERCENTAGE PROBABILITY OF OCCURRENCE OF DIFFERENT AMOUNTS OF RAINFALL IN OCTOBER					
	1-5	6-10	11-16	17-20	21-25	26-30
10mm	16	16	18	18	9	9
15mm	12	9	14	10	1	5
25mm	6	6	5	4	0	3

The mean daily relative humidity may range between 45% and 55% during the month. Over high agricultural plains of Balochistan, it may be around 35%. In general, the mean relative humidity all over the country would be 10% less than September except high agricultural plains of Balochistan, where it is expected to be slightly higher.

Despite the shorter days, cooler atmosphere and less intense solar radiation, evaporative demand of the atmosphere is expected to maintain the level of September values. The reasons are the clearer skies and drier atmosphere during October, relative to September. The ETo values are expected to range between 4.0 and 5.5 mm/day over most parts of Khyber Pakhtoonkhawa, Punjab and Southern Balochistan. It would be close to 3.5 mm/day over high agricultural plains of Balochistan. It may exceed 6 mm/day over Sindh.

The mean daily temperatures are expected to drop about 3 to 5°C relative to September. They may range 22 to 26°C over most of Punjab and Khyber Pakhtoonkhawa. However, it may exceed 30°C in Sindh whereas in high agricultural plains of Balochistan, it would be close to 15°C. The mean maximum temperatures are expected to range between 31 and 37°C. They are expected to be around 25°C in Quetta. Maxima may exceed 40°C at few places mainly in southern Punjab, upper Sindh and adjoining Balochistan. Mean daily minimum temperatures are expected to range between 14°C and 22°C except in high agricultural plains of the country. High agricultural plains of Balochistan are expected to experience few freezing nights towards the end of the month.

The numbers of bright sunshine hours are expected to range between 9 hours a day in north to 10 hours a day in south. Besides lower solar angle, there will be slight increase in bright sunshine duration relative to last September due to clearer skies during October. The intensities of solar radiation are expected to range between 17 and 20 MJ/M²/day throughout the country.

During October, mean wind speeds are expected to remain below 10 Km/hour over most of agricultural areas of the country. It is expected that prevailing southerly wind flow may shift to northwesterly direction. Following is the water requirement of full canopied healthy crops in different regions of the country during October:

S. No	Region	Water Requirement	
		(mm)	Cubic Meter/Hectare
1	Northern Punjab, Northern Khyber Pakhtoonkhawa and high agricultural plains of Balochistan	110-120	1100-1200
2	Southern Khyber Pakhtoonkhawa, and Southern Punjab	140-160	1400-1600
3	Sindh and Southern Balochistan	180-190	1800-1900