

MOISTURE REGIME DURING SEPTEMBER, 2012

September is the last month of monsoon rains in Pakistan. Shallow monsoon weather systems remain active till the mid of this month. These monsoon weather systems along with westerly waves penetrate mostly in the upper half of the country and cause rainfall of light to moderate intensity in this month. However, in this September, above normal rains were recorded in most of the agricultural plains of the country. Record heavy to very heavy rainfall was reported from some of the agricultural plains of Punjab, Sindh and Baluchistan, which also caused heavy flooding in these areas and lodged or damaged the standing crops.

The highest amount of rainfall reported in the month was 481mm in Jacobabad followed by 355mm in Islamabad, 319mm in Balakot, 294mm in Khanpur and 282mm in Murree. Number of rainy days recorded in agricultural plains of the country ranged from 5 to 15. Maximum number of rainy days was recorded (14 days) in Gilgit followed by 12 days in Lahore, 11 days in Peshawar and Jhelum each and 10 days in Rawalpindi.

The evaporative demand of the atmosphere represented by reference crop evapotranspiration (ET_o) remained normal to below normal in the agricultural plains of the country. The highest value of ET_o was estimated in Rohri. Main reason for below normal ET_o in the country is the cloudy/humid atmosphere prevailing during the month.

The mean daily Relative Humidity (R.H) remained normal to above normal in all agricultural plains of the country due to cloud/rainy atmosphere prevailing during the month. Maximum value of mean Relative humidity was observed 71% at Tandojam followed by 70% at Peshawar, 69% at Sargodha while the minimum value was observed at Quetta due to its dry climate in this month. Maximum numbers of days with mean R.H greater or equal to 80% was observed 1 to 10 days in all parts of the country. 10 days were observed Rohri followed by 9 days at Rawalpindi, 8 days at Tandojam and so on.

From overall analysis of the whole monsoon season of this year it is evident that in the start below normal rains reported during July and normal to below normal rains were received in August. But during September above normal rains were reported in all agricultural plains of the country. These rains have produced floods/flash flooding causing loss of Crops, life and property at some areas of Punjab, Sindh and Baluchistan. However the moisture stress has finished and sufficient moisture is available in the atmosphere producing favorable conditions for the coming Rabi crops especially at sowing time. However stagnant water and unavailability of other resources like seed and fertilizer may reduce or delay the on time sowing of Rabi crops in flood affected areas. In flood free areas the conditions are favorable for in time sowing of Rabi crops.

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STATION	PRECIPITATION (MM)			REFERENCE CROP EVAPOTRANSPIRATION (ET _o) (MM/DAY)	RELATIVE HUMIDITY	
	TOTAL	No. OF DAYS	OF ≥ 5 MM/DAY		MEAN	No. OF DAYS WITH MEAN R.H ≥ 80%
PESHAWAR	114.6 (17.9)	11	109.6	3.3 (5.6)	70 (59)	05
D.I. KHAN	120.0 (17.6)	06	120.0	3.9 (5.8)	67 (57)	04
KAMRA	92.0 ---	07	84.0	---	69 ---	06
RAWALPINDI	172.0 (98.2)	10	165.0	3.4 (5.4)	68 (61)	09
JHELUM	59.3 (77.7)	11	54.9	3.6 (5.6)	72 (62)	07
SARGODHA	127.8 (26.3)	08	126.8	3.7 (5.7)	69 (59)	06
LAHORE	199.4 (61.1)	12	197.6	3.8 (5.7)	67 (59)	07
FAISALABAD	147.9 (28.7)	08	144.4	4.2 (5.7)	67 (60)	07
MULTAN	158.2 (10.8)	08	154.7	4.1 (5.9)	65 (57)	06
KHAN PUR	293.9 (15.5)	07	284.9	4.5 (5.8)	69 (57)	04
QUETTA	11.4 (0.3)	04	6.4	4.4 (4.4)	36 (36)	01
ROHRI	21.0 (10.0)	05	21.0	4.6 (5.9)	52 (56)	10
TANDOJAM	133.4 (21.4)	06	133.4	3.9 (7.0)	71 (61)	08
GILGIT	94.0 (6.5)	14	39.0	3.3 (3.4)	61 (47)	04
SKARDU	3.0 (7.1)	05	0.0	2.9 (3.3)	52 (38)	01