

Months	Max. Temp (°C)	Min. Temp (°C)	Rain fall (mm)	Sunshine (h/day)	RH (%)	Wind speed (km/day)	Pan Evaporation (mm)
Jan	32.9	18.7	3.1	8.8	57.4	148	243
Feb	34.7	19.2	3.3	9.1	53.4	158	229
March	37.1	21.8	8.5	7.6	50.4	155	276
April	39.1	27.0	29.9	9.6	48.2	139	287
May	41.6	25.6	3.7	9.9	41.8	110	344
June	43.2	27.1	1.5	7.5	33.7	126	342
July	41.6	26.8	41.9	6.8	42.0	147	375
Aug	39.5	25.7	65.8	7.2	49.7	127	283
Sept	39.8	25.1	16.0	7.0	47.5	99	259
Oct	38.0	21.8	6.4	9.6	47.8	98	249
Nov	35.5	19.0	6.3	9.6	51.3	113	222
Dec	33.4	18.3	10.0	9.3	55.1	120	229

Appendix 1: Mean Monthly Climatic data of 17 years (2000-2016).

Soil Mapping Unit	Land form/ major soil group	FAO soil units
RA-1 to RA-6	Recent alluvium	Eutric fluvisols
		Glegic fluvisols
		Pellic vertisols
		Salic vertisols
LS -1 to LS-13	(Vertisols, Dubti farm where the study is under taken; Silty clay and Silty clay soil textures)	Sodic solonchaks-Solonetz
		Pellic vertisols
		Calcaric vertisols
		Natric vertisols
		Eutricflu visols
		Pellicvertisols, Inandic phase
		Eutricvertisols, gilgai phase
		Arenic Regosols
Salic solonetz		
YA-1	Young riverine alluvium	Calcaric fluvisols, Inandic phase

Appendix 2: FAO classification soil-mapping units and their extent in project area.

Physical property		FC (%V)		PWP (%V)		AWC (%V)		Bulk density, g/cm ³	
Depth cm		0-30	30-60	0-30	30-60	0-30	30-60	0-30	30-60
Soil types	Silty clay	36.3	39.0	20.0	22.3	16	17	1.356	1.401
	Silty clay loam	37.4	40.6	20.4	22.8	17	18	1.355	1.421

Appendix 3: Average soil available water.

Texture class of soil mapping units	Silty clay soil				Silty clay loam soil			
	Cane age, months	0 to 3	3 to 6	6 to 12	> 12	0 to 3	3 to 6	6 to 12
Jan	11	10	12	19	10	9	11	18
Feb	9	9	10	17	9	8	9	16
Mar	8	9	10	18	8	9	10	17
April	8	10	11	21	7	9	10	19
May	8	10	11	20	7	9	10	19
Jun	8	14	14	-	7	13	13	-
July	8	30	24	-	7	28	22	-
Aug	8	-	-	-	8	-	-	-
Sept	9	-	-	-	8	-	-	-
Oct	9	-	-	-	9	-	30	-
Nov	10	19	19		9	17	17	-
Dec	11	11	12	21	10	10	12	20

The (-) sign indicates there no need irrigation or maximum of a single irrigation is required per month for that given stage because the interval is greater than 30 days.

Appendix 4: Theoretical irrigation intervals for respective soils and growth stage (WWDSE, 2005).

