

Table S1. Mean daily maximum and minimum air temperature and monthly rainfall for each growing season of the experimental period and long term averages (1980-2016) in the experimental area

Month	2012			2013			2014			Long-term average		
	Precip. (mm)	Max. temp. (°C)	Min. temp. (°C)	Precip. (mm)	Max. temp. (°C)	Min. temp. (°C)	Precip. (mm)	Max. temp. (°C)	Min. temp. (°C)	Precip. (mm)	Max. temp. (°C)	Min. temp. (°C)
Jan.	61	11	-3.84	26.5	12	-4.23	30	11.6	-3.2	43	10	-3.52
Febr.	21	9.93	-1.72	37	10	-2.18	22	10.5	-1.2	84	8.32	-1.56
March	37	16	0.3	43	16.3	0.5	38	16.1	0.9	51	17	0.1
April	0	21.96	4.59	0	19.1	4.32	0	20.3	5.1	45	20.3	3.52
May	0	28.9	9.59	0	27.4	9.86	0	26.9	10.2	10	24.3	8.32
June	0	33.11	12.42	0	33.2	12.48	0	32.1	13.2	0	32.1	10.12
July	0	35.58	15	0	35.9	15.3	0	34.3	15.8	0	34.2	14.3
Aug.	0	34.69	13.04	0	34.1	13	0	35	136	0	35.3	12.5
Sept.	0	31.41	10.14	0	30.98	10.14	0	31.2	10.2	0	31.1	9.21
Oct.	14.5	25.72	5.44	16	25.1	5.52	0	26.3	5.89	10	24.6	4.36
Nov.	130	17.2	1.55	106	18	2.12	77.5	17	2.52	48	18.1	125
Dec.	98	11.77	-1.38	70	12.3	-1.21	20	13	-1	93	12	-1.32

Table S2. Physical and chemical properties of soil in the experimental site

Physical properties	Soil depth (cm)			
	0-10	10-30	30-60	60-90
FC (cm ³ cm ⁻³)	0.30	0.32	0.33	0.33
PWP (cm ³ cm ⁻³)	0.16	0.16	0.19	0.19
ρ_b (g cm ⁻³)	1.3	1.43	1.43	1.43
Organic matter (%)	2.0	-	1.0	-
Sand (%)	55	57	51	50
Clay (%)	35	31	39	34
K _s (m day ⁻¹)	0.07	0.07	0.19	0.29
Soil texture	Sandy clay	Sandy clay	Sandy clay	Sandy clay
Chemical properties				
EC (dS m ⁻¹)	0.65	0.65	0.51	0.58
pH	8.0	8.2	8.0	8.1

FC, field capacity. PWP, permanent wilting point. ρ_b , bulk density. K_s, saturated hydraulic conductivity. EC, electrical conductivity. pH, acidity