

SUPPLEMENTARY MATERIAL

Effect of Biochar and Compost Addition on Mitigating Salinity Stress and Improving Fruit Quality of Tomato

Muhammad Mughees Ud Din ¹, Muhammad Imran Khan ^{1,2,*}, Muhammad Azam ³, Muhammad Hayder Ali ¹, Rashad Qadri ³, Muhammad Naveed ¹ and Abdul Nasir ⁴

¹ Institute of Soil and Environmental Sciences, University of Agriculture, Faisalabad 38040, Pakistan; mugheesuddin24@gmail.com (M.M.U.D.); hayderali3033@gmail.com (M.H.A.); mnaveeduaf@googlemail.com (M.N.)

² Department of Isotope Biogeochemistry, Helmholtz – Center for Environmental Research – UFZ, 04318 Leipzig, Germany

³ Institute of Horticultural Sciences, University of Agriculture, Faisalabad 38040, Pakistan; azam32jb@yahoo.com (M.A.); waseemrana_83pk@yahoo.com (R.Q.)

⁴ Department of Forestry and Range Management, University of Agriculture, Faisalabad 38040, Pakistan; abdulnasirmauia@gmail.com

* Correspondence: khanimran1173@yahoo.com or khanimran@uaf.edu.pk

Table S1. Detail of treatments used in this study.

Treatments	Details
Control	Plants grown on non-saline soil
S	Plants grown on saline soil
BC	Plants grown on non-saline soil with biochar
S + BC	Plants grown on saline soil with biochar
C	Plants grown on non-saline soil with compost
S + C	Plants grown on saline soil with compost
BC+C	Plants grown on non-saline soil with biochar and compost
S + BC + C	Plants grown on saline soil with biochar and compost

S, Salinity; BC, Biochar; C, Compost.

Table S2. Physicochemical properties of soil, biochar, and compost used in this study.

Properties	Units	Soil	Biochar	Compost
Soil texture	%	Sandy loam (Sand 50, Silt 26.4, Clay 23.6)	-	-
Saturation percentage	%	30.0	-	-
pH	-	7.80 ± 0.12	8.0 ± 0.16	-
CEC	cmol kg^{-1}	14.2 ± 0.37	49.0 ± 2.36	-
EC	dS m^{-1}	1.96 ± 0.21	2.4 ± 0.15	-
Organic matter	%	0.21 ± 0.02	-	-
Soluble Na^+	me L^{-1}	17.1 ± 0.67	-	-
Carbon	%	-	46.2 ± 4.1	23.5 ± 1.6
Nitrogen	%	0.09 ± 0.01	0.12 ± 0.04	2.7 ± 0.26
Phosphorous	%	0.003 ± 0.001	0.18 ± 0.05	0.47 ± 0.08
Potassium	%	0.017 ± 0.001	0.73 ± 0.09	1.65 ± 0.19

CEC, Cation Exchange Capacity; EC, Electrical conductivity; Na^+ , Sodium.

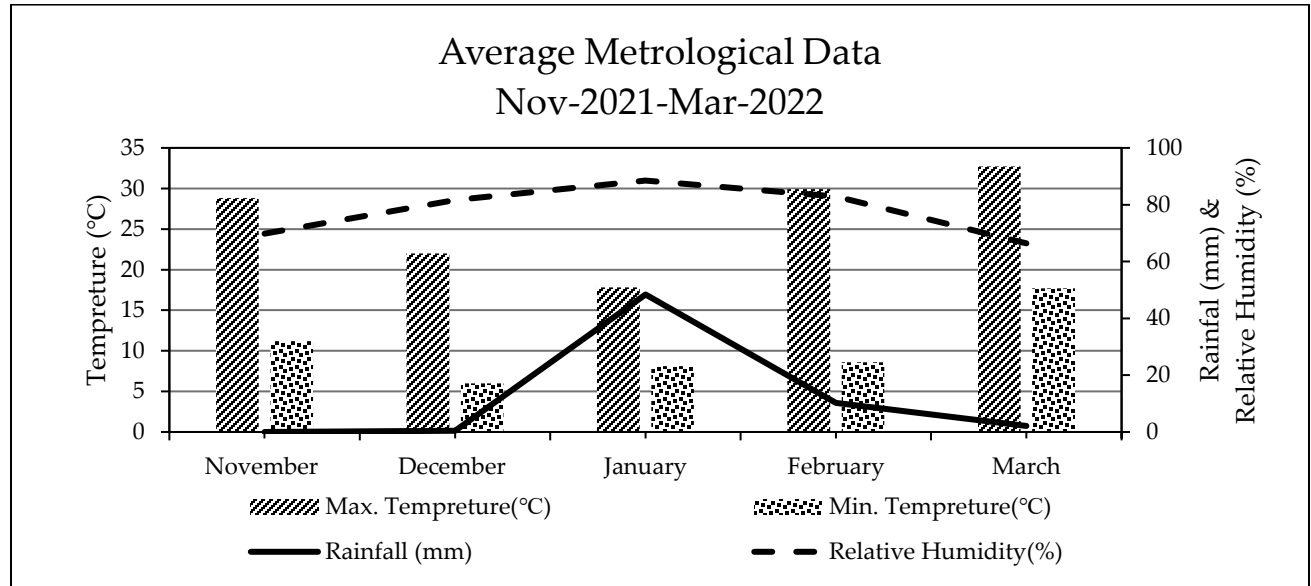


Figure S1. Average metrological data of the whole experimental period (November 2021–March 2022).