

Table S1. Mean monthly air temperature, average relative humidity (RH_{avg}), and wind speed (WS) at Fayoum, Egypt, as the average for 2020–21 (SI) and 2021–22 (SII) seasons.

Month	Main air temperature ($^{\circ}C$)						RH_{avg} (%)		WS ($m\ s^{-1}$)	
	T_{max}		T_{min}		T_{avg}		SI	SII	SI	SII
	SI	SII	SI	SII	SI	SII				
October	28.5	29.3	16.9	17.5	22.7	23.4	42.9	43.5	2.13	2.09
November	27.8	28.4	16	15.2	21.9	21.8	44.7	43.7	1.96	2.00
December	20.8	21.2	12.4	12.6	16.6	16.9	43.2	44	2.02	1.98
January	20.2	20.8	9.4	9.6	14.8	15.2	42.3	43.7	3.00	2.90
February	22.5	21.9	8.7	9.1	15.6	15.5	41.2	43	3.23	3.19
March	26.8	27.8	13.1	12.7	20.0	20.3	38.8	37.8	2.16	2.28
April	29.4	31	17	16.2	23.2	23.6	38	37.2	2.00	1.96

T_{max} , T_{min} , and T_{avg} = maximum, minimum, and average temperatures, respectively.

Table S2. Physicochemical properties of CB mixture.

Property	Unit	Value
Organic C	(g kg ⁻¹)	396
ECe	(dS m ⁻¹)	4.62
BD	(g cm ⁻³)	0.86
WHC	(%)	26.23
Water content	(v/v)	25.34
pH		7.42
Cation exchange capacity	(cmol ⁺ kg ⁻¹)	46.50
N	(%)	1.83
P	(g kg ⁻¹)	2.89
K ⁺	(g kg ⁻¹)	2.54
Ca ²⁺	(g kg ⁻¹)	2.51
Zn	(mg kg ⁻¹)	66.72
Fe	(mg kg ⁻¹)	76.32
Mn	(mg kg ⁻¹)	165.6
Cu	(mg kg ⁻¹)	20.21

CB, compost and biochar; C, carbon; ECe, electrical conductivity of soil extract; BD, bulk density; WHC, water holding capacity; N, nitrogen; P, phosphorus; K⁺, potassium; Ca²⁺, calcium; Zn, zinc; Fe, iron; Mn, Manganese; Cu, copper.