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CORRECTION

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Correction: Impact of biochar and compost amendment on corn yield and greenhouse gas emissions under waterlogged conditions

Han-Na Cho[1], Minji Shin[2], Ikhyeong Lee[2], Haeun Ryoo[2], Bharat Sharma Acharya[3], Jae-Hyuk Park[1], Yong Hwa Cheong[1,4], Ju-Sik Cho[1,4] and Se-Won Kang[1,4*]

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Following publication of the original article [1], the authors would like to correct the errors occurred in Fig. 1, Table 1, Materials and Methods, and Results section.

The corrected sentences and the correct version of Fig. 1 and Table 1 are given below.

The original article [1] has been corrected.

Materials and methods

Monitoring of CO_2 and N_2O fluxes

The CO_2 and N_2O fluxes (mg m^{-2} h^{-1}) were monitored through a static chamber with 0.07 m^2 area and 0.02 m^3 volume. The chamber was placed between corn plants to a soil depth of 20 cm. Gas sampling was performed between 9 and 10 a.m. every 7 days and samples were collected at 0, 20, and 40 min after chamber closure, using a 10 mL gas tight syringe. The measurements of CO_2 and N_2O were simultaneously analyzed on a gas chromatograph (8892 GC System, Agilent, USA) with a flame ionization detector (FID) and an electron capture detector (ECD), respectively. Fluxes of CO_2 and N_2O were calculated using the following equation [29]:

Results

Growth characteristics of plant and corn

Tables 3 and 4 show distinct growth and yield characteristics of corn contingent upon treatment types measured after harvest, respectively. The CP treatment emerged as the most efficacious, consistently exhibiting superior corn growth metrics. Cn registered an average plant height of 184 cm, CP 176 cm, RB 142 cm, and WB 154 cm. CP treatment demonstrated enhanced stem and leaf weights, and corn productivity relative to other treatments. Corn productivity was highest at CP treatment (25.2 t 10 a^{-1}), followed by Cn (22.4 t 10 a^{-1}), and the RB (11.5 t 10 a^{-1}) and WB treatments (13.6 t 10 a^{-1}), respectively. CP treatment manifested a pronounced enhancement in corn biomass, exceeding biomass of Cn treatment by 12.6, RB treatment by 120, and WB treatment by 86%, respectively.

The total weight of corn increased in the order: CP (237 g) > Cn (191 g) > WB (107 g) > RB (79 g). Similarly, corn yield increased in the order: CP (157 g) > Cn (119 g) > WB (71 g) > RB (53 g). Notably, there was a negligible disparity between the RB and WB treatments in straw yield, grain yield, grain index and corn productivity but both were distinctively lower than CP treatment. CP

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*Correspondence:
Se-Won Kang
kangsw@scnu.ac.kr
[1] Department of Agricultural Chemistry, Sunchon National University, Suncheon 57922, Republic of Korea
[2] Department of Bio-envrionmental Sciences, Sunchon National University, Suncheon 57922, Republic of Korea
[3] Rodale Institute, Southeast Organic Center, Chattahoochee Hills, GA 30268, USA
[4] Department of Agricultural Life Sciences, Sunchon National University, Suncheon 57922, Republic of Korea

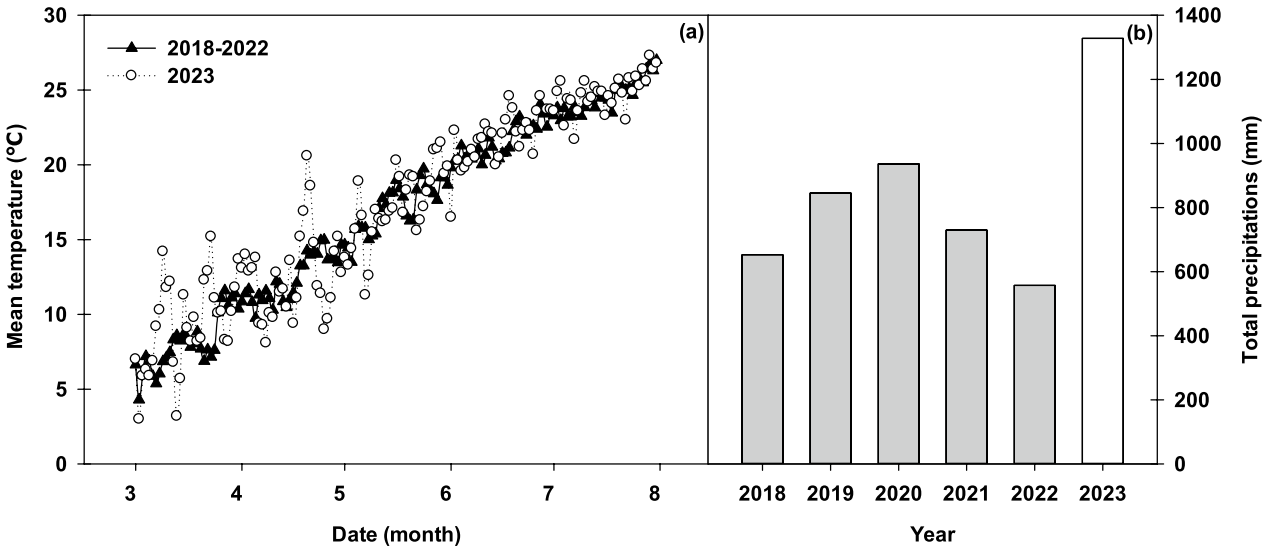

Fig. 1 Mean air temperature (**a**) and total precipitation (**b**) during corn's season

Table 1 Soil properties of the experimental soil used in the study

Bulk density	pH	EC	OM	TN	Avail. P_2O_5	Exch. cations ($cmol_c\ kg^{-1}$)				
($Mg\ m^{-3}$)	(1:5H_2O)	($dS\ m^{-1}$)	($g\ kg^{-1}$)		($mg\ kg^{-1}$)	K	Ca	Mg	CEC	Soil texture
1.28	5.31	0.29	25.8	1.52	67.6	0.59	2.67	0.88	9.22	Clay loam soil

treatment registered a peak grain yield at 120 g and corn productivity at 2.51 t 10 a^{-1}.

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Reference

1. Cho H-N, Shin M, Lee I, Ryoo H, Acharya BS, Park J-H, Cheong YH, Cho J-S, Kang S-W (2023) Impact of biochar and compost amendment on corn yield and greenhouse gas emissions under waterlogged conditions. Appl Biol Chem 66:87. https://doi.org/10.1186/s13765-023-00845-8

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