

Figure S1. Mixture of soil and various rates of wood biochar.

Figure S2. Plant growth with different loading rates of the nutrients saturated biochar.

Figure S3. Comparison of stem dry weight (A), root dry weight (B), total plant biomass (C), and the number of leaves (D) among biochar rates within each biochar saturation condition. Total plant biomass is the combination of stem and root dry weight. Two sample t-test was performed among each group compared (P -value $< 0.05^*$, P -value $< 0.01^{**}$, P -value $< 0.001^{***}$).

Figure S4. Alpha rarefaction curve showing observed OTUs at sampling depth of 74000 reads.

Figure S5. Differentially abundant taxa at class level between SBC and UBC treated soil among plant samples determined by LEfSe analysis.

Figure S6. Differentially abundant features after 10 weeks among no-plant soils determined by LEfSe analysis. Comparison was made among no-plant soils with time as class and saturation status subclass.

Figure S7. LEfSe analysis of (A) FAPROTAX and (B) PICRUST2 predicted functions showing temporal variation in functional potential of microbial communities in biochar amended soil. Comparison was made among no-plant samples with time as class and saturation status as subclass.

Supplements:

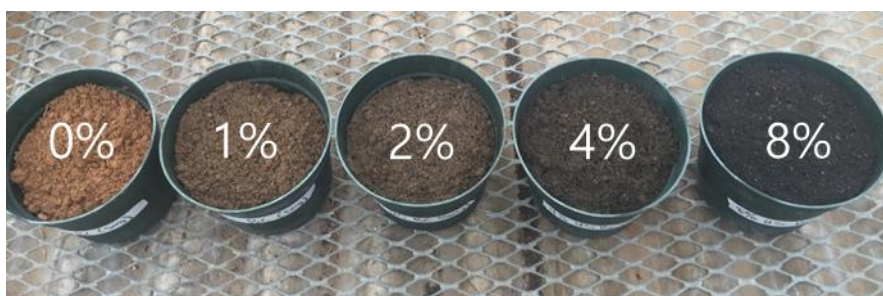


Figure S1. Mixture of soil and various ratios of wood-biochar.

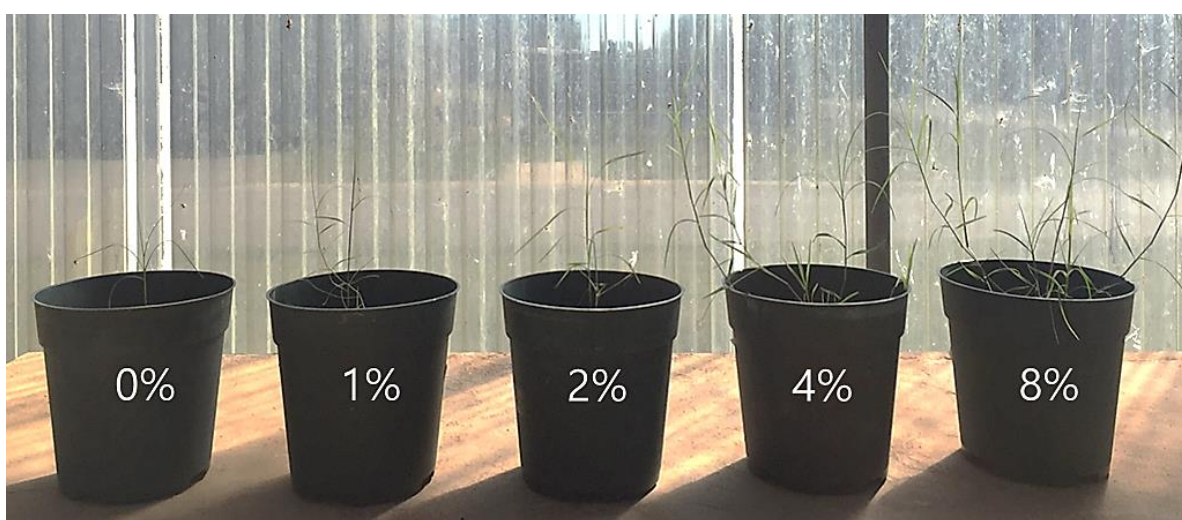


Figure S2. Plants growth with the different loading ratios of the nutrients saturated biochar.

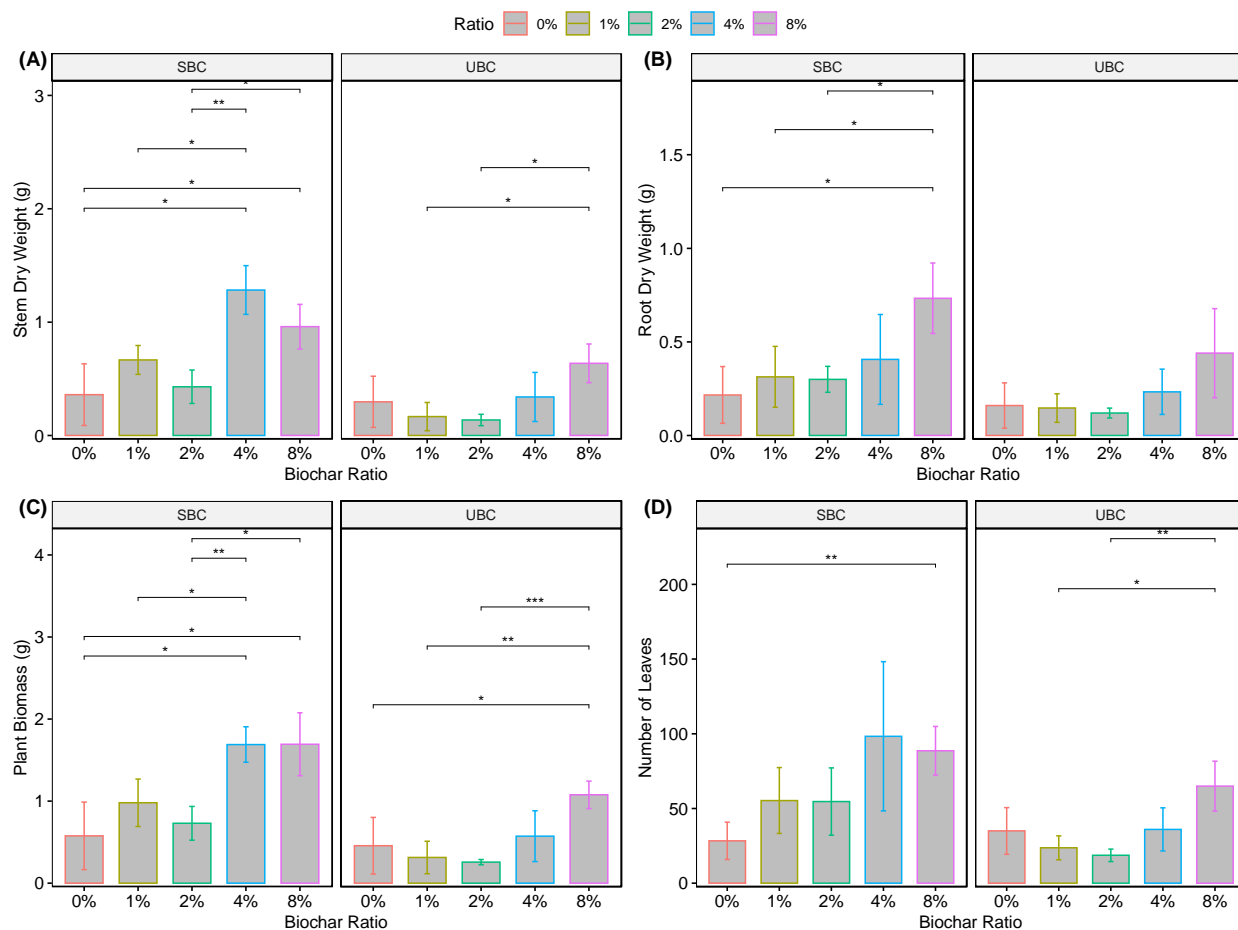


Figure S3. Comparison of stem dry weight (A), root dry weight (B), total plant biomass (C), and the number of leaves (D) among biochar ratios within each biochar saturation condition. Total plant biomass is the combination of stem and root dry weight. Two sample t-test was performed among each group compared (p-value < 0.05*, p-value < 0.01**, p-value < 0.001***).

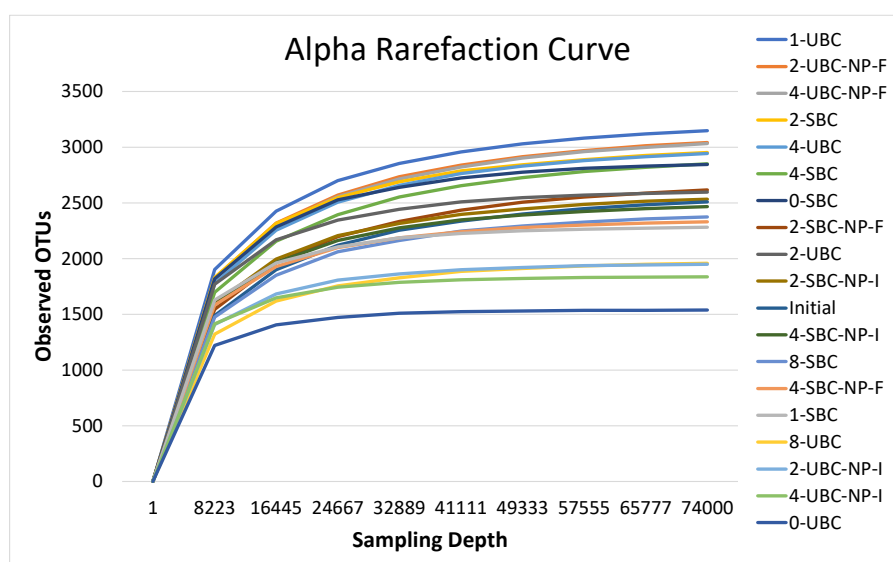


Figure S4. Alpha rarefaction curve showing observed OTUs at sampling depth of 74000 reads. [Abbreviations: SBC; Saturated Biochar, USB; Unsaturated Biochar, NP; No plant, I; Initial, F; Final]

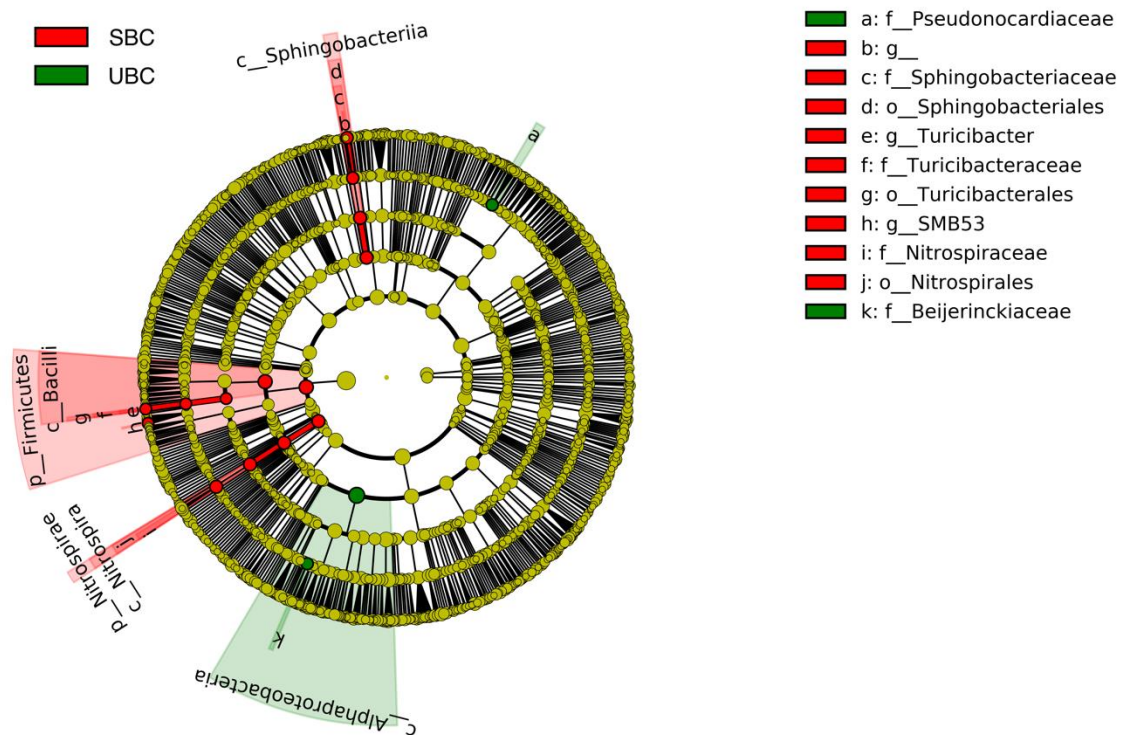


Figure S5. Differentially abundant taxa at class level between SBC and UBC treated soil among plant samples determined by LEFSe analysis.

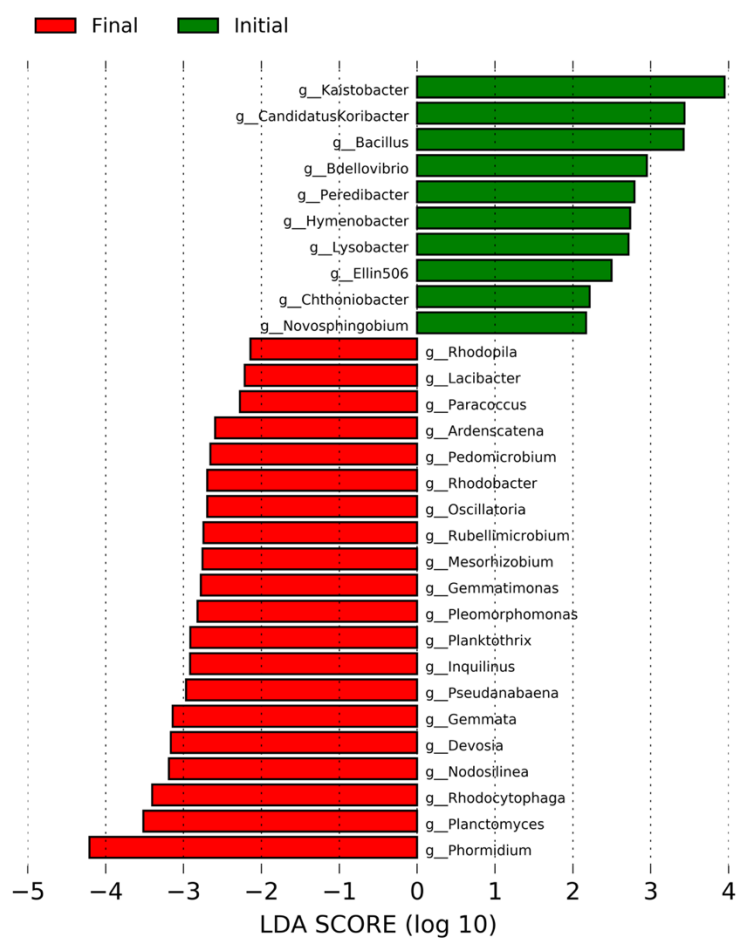


Figure S6. Differentially abundant features after 10 weeks period among no-plant samples determined by LEfSe analysis. Comparison was made among no-plant samples with time as class and saturation status subclass.

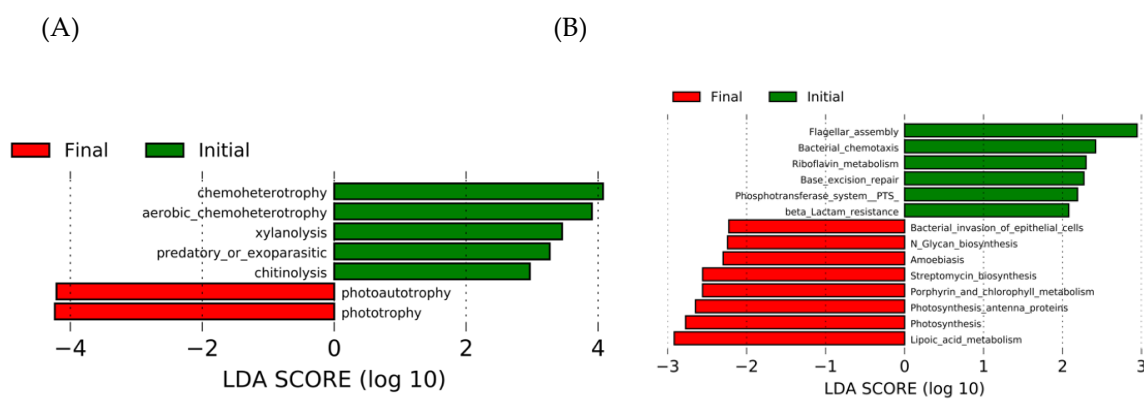


Figure S7. LefSe analysis of (A) FAPROTAX and (B) PICRUST2 predicted functions showing temporal variation in functional potential of microbial communities in biochar amended soil. Comparison was made among no-plant samples with time as class and saturation status as subclass.