

Thank you for your advice. I will answer and revise the following questions.

1. The concluding sentence should be more specific, e.g., "shifted dominant microorganisms", with specific species and modes of species transformation.

Response:We have revised this sentence following your suggestion. Based on the reviewer's comments, add the dominant microorganisms to the conclusion and change to "Here, we highlight that the increase of salinity reduced the diversity of microbial community and shifted dominant microorganisms(Actinobacteria and Proteobacteria (Luteimonas, Hoeflea and Stenotrophomonas)) that determined SOC priming effects, which provides a theoretical basis for understanding of SOC dynamics and microbial drivers under salinity gradient. "

2. The order of the preface should be adjusted by placing the current status and hazards of soil salinization in the first paragraph, followed by a description of soil organic carbon and soil initiation effects, and their effects on soil flora, in the context of the soil salinization problem.

Response: We have modified the Introduction according to your comment. We have re-adjusted the order of the Introduction.

3. Line 45: References are incorrectly cited in format.

Response: We have corrected it in the Manuscript. The format of the reference in line 45 has been changed. "The input of substrate C can influence the output (i.e., CO₂ release) through a phenomenon called priming effect, which was firstly discovered by LÖhnis (1926). "

4. Is it inter-root or non-root soil? Please add it.

Response:We have revised this sentence following your suggestion. The soil samples is non-rhizosphere soil.Please see lines 96-100" In September 2021, we determined the sampling area, and use the five-point sampling method to collect non-rhizosphere soil. The soil samples were indoor air drying and hand-picked to remove visible other debris, animal and plant residues and then sieved at field moisture (<2mm) and subsequently adjusted to 40% of water holding capacity (WHC). Texture was determined by the pipette method without carbonate in all soil samples. They were then incubated at 25 °C for 7 days before starting the experiments, to allow any early sampling and sieving effects to subside. "

5. Line 122: Soil: water should be 1:2.5 for the determination of soil pH and EC. Please refine the methods for the determination of soil total carbon and nitrogen content, soil microbial carbon and soil organic carbon.

Response:We have revised this sentence following your suggestion. In this experiment, soil pH and EC were determined by the method of Bao (2000), and your comments will be taken into account to improve the test method in future tests. And the methods of soil total carbon and nitrogen content determination were improved. Please see lines 115-131 "Air-dry soil (5 g, <2 mm) and 25 ml of deionised water were shaken together for 1 min and left to settle for 30 min, which was repeated once more before pH was determined with a pH electrode. Soil water-soluble salt was analyzed by weighted at a soil:water ratio of 1:5 (weight/weight). Air-dry soil (5 g, <1 mm) and 25 ml of deionised water were shaken together for 30 min, filtration to obtain clear filtrate, using thermostat water bath to evaporate and weigh(Bao, 2000). Soil total carbon (TC), total nitrogen (TN) are collect soil to be tested was dried and ground through a 0.15mm screen, and a certain amount of treated soil sample was wrapped in tin foil and placed in an element analyzer for determinatio (air-dried, milled <150 µm) were determined by dry combustion (LECO CNS 2000, LECO Corporation, Michigan, USA). Soil microbial biomass C was determined by fumigation extraction (Vance et al., 1987; Wu et al., 1990) ".

6. Line 250: Please revise the "CO2" subscript.

Response: Sorry for this error.We revise the "CO2" to "CO₂".

7. Line 377: Please keep the italics of the bacterial colony consistent.

Response:We have revised this sentence following your suggestion. We have examined slants of full-text bacterial colonies with consistency.

8. The conclusion section lacks content related to the stimulation of soil salinity by cotton meal and its regulation of the distribution of bacterial flora, and should focus on the role of cotton meal treatments on soil changes, thus highlighting the characteristics of this study.

Response: Based on the opinions of all reviewers, we have adjusted the conclusion.We revise the conclusion : "Cotton meal is a kind of organic material with high nitrogen content, adding cotton meal in salinised soil can stimulate and promote the release of soil nutrients. The microorganisms mainly use the organic matter in the cotton meal in the pre-culture period, so the soil carbon excitation is negative excitation, Soil priming effect turned from negative to positive at the later stage of incubation (day 28), because microorganisms turned to decompose SOC from the labile substrate. With the increase of salinity, the diversity of microbial community decreased. Soil microbial community was mainly controled by soil pH and EC. By O2PLS, we found Actinobacteria and Proteobacteria (Luteimonas, Hoeflea and Stenotrophomonas) dominant in these soils were the core microbial taxa that affecting the process of organic C mineralization, particularly soil primed CO₂ ".