

Reintroduction of decomposed straw to maize fields resulted in soil microbial community change and increased corn production

Yang Zhou^{1,2}, Weihui Xu^{1,2}, Wenjing Chen^{1,2}, Yunlong Hu^{1,2}, ZhigangWang^{1,2†}

¹ School of Life Science and Agriculture Forestry, Qiqihar University, Qiqihar, Heilongjiang 161006, China
² Heilongjiang Provincial Technology Innovation Center of Agromicrobial Preparation Industrialization, Qiqihar 161006, China

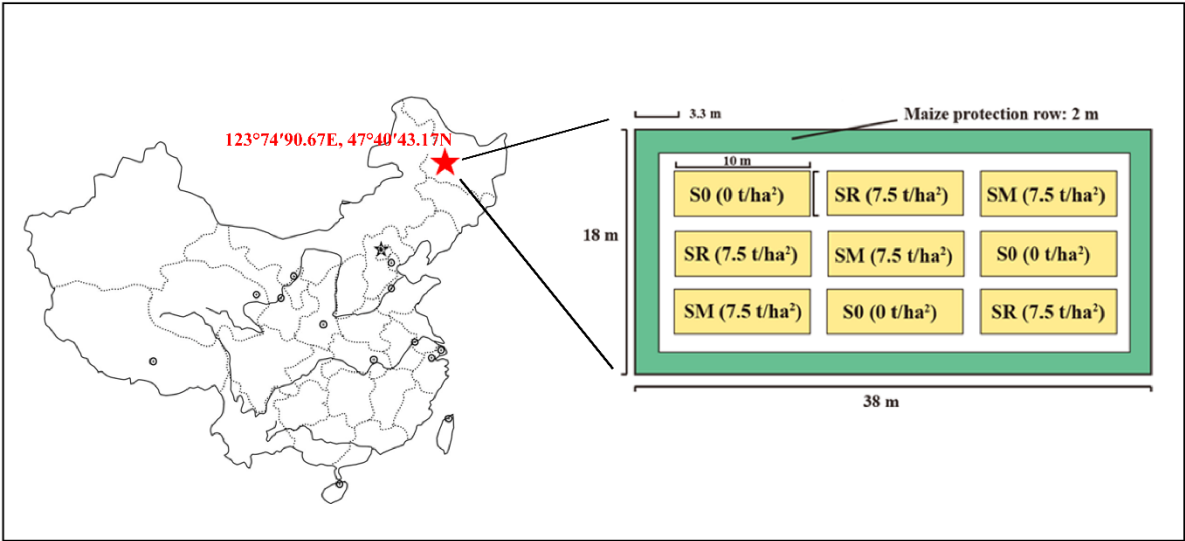


Fig. S1 Schematic diagram of test plot. The experiment site is located at 123°74'90.67E,47°40'43.17N.

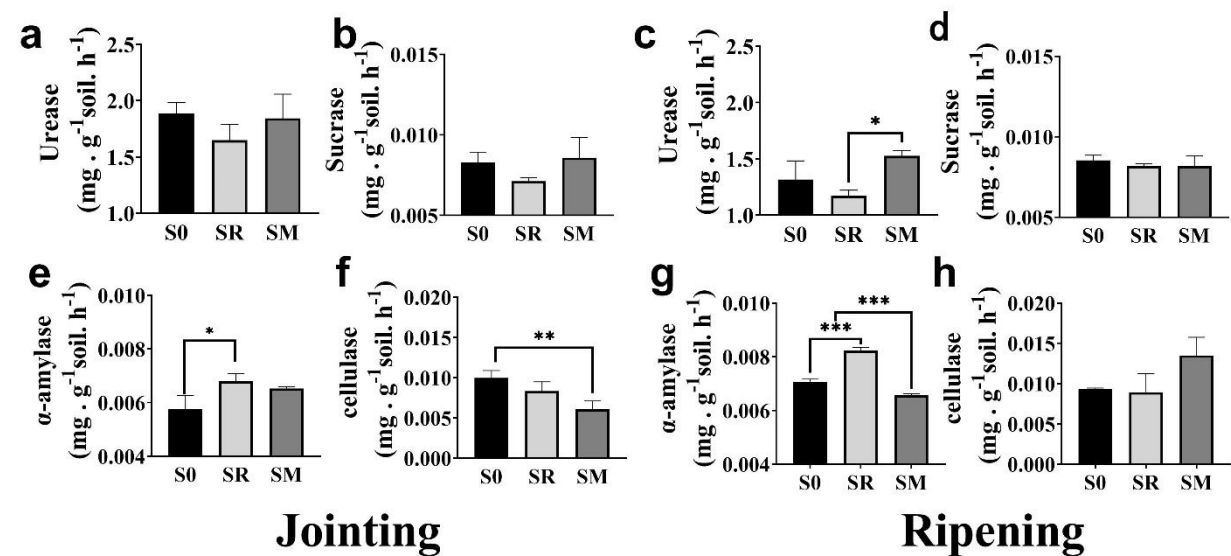


Fig. S2 Changes in soil enzymatic Activities. (a) soil urease activity, (b) sucrase activity, (e) amylase activity, (f) cellulase activity respectively in the jointing stage; (c) soil urease activity, (d) sucrase activity, (g) amylase activity and (h) cellulase activity respectively in the ripening stage. Significance level: $p < 0.05$, *; $p < 0.01$, **; $p < 0.001$, ***

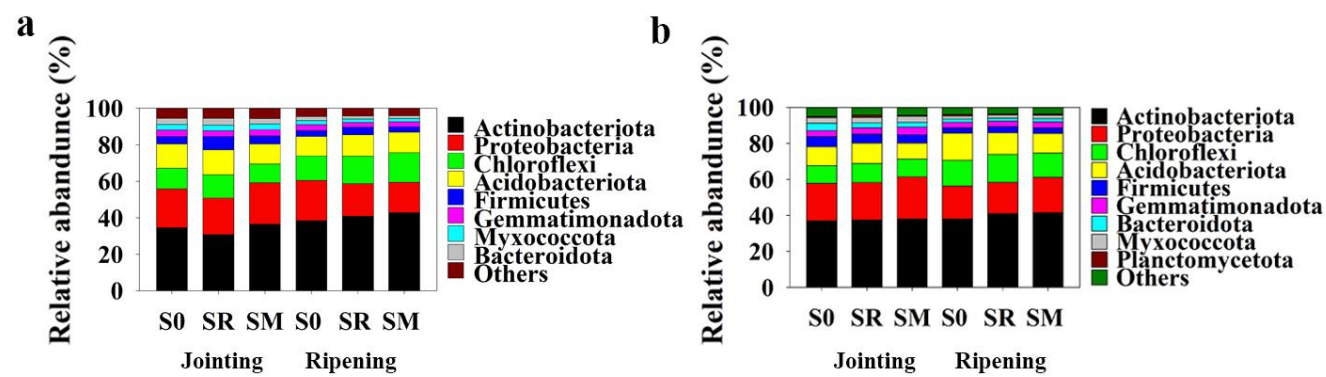


Fig. S3 Bacterial community composition of the rhizosphere (a) and bulk (b) samples at the phylum level

[†] Corresponding authors: Z. Wang; wangzhigang@qqhru.edu.cn
Current address for Z. Wang: Tel.: 086-0452-2738781; School of Life Science and Agriculture Forestry, Qiqihar University, Qiqihar, Heilongjiang, China.

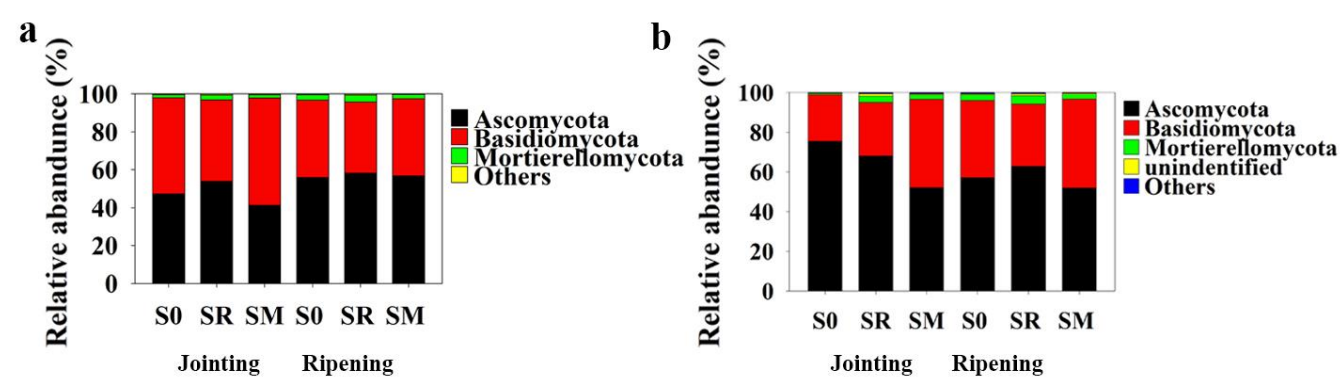


Fig. S4 Fungi community composition of the rhizosphere (a) and bulk (b) samples at the phylum level