

Supplementary Information for

Insights into the driving factors of methane emission from double-season rice field under different fertilization in South China

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Supplementary Figures

Figure S1. Microbial composition differences of the top 50 abundant microbial genera between early- and late-season rice in the different fertilization soils.

Figure S2. The relative abundance (%) of methanogens from different fertilization soils in early- and late-season rice. Different letters (a, b, c, d) indicate significant differences in the mean value of each chemical property among different treatments (Duncan's multiple range test, $P < 0.05$).

Figure S3. The relative abundance (%) of aerobic CH₄-oxidizing methanotrophs from different fertilization soils in early- and late-season rice. Different letters (a, b, c, d) indicate significant differences in the mean value of each chemical property among different treatments (Duncan's multiple range test, $P < 0.05$).

Figure S4. The correlation between the abundance of CH₄ metabolism genes (*mcrA* and *pmoA*) and cumulative CH₄ emissions.

Figure S1

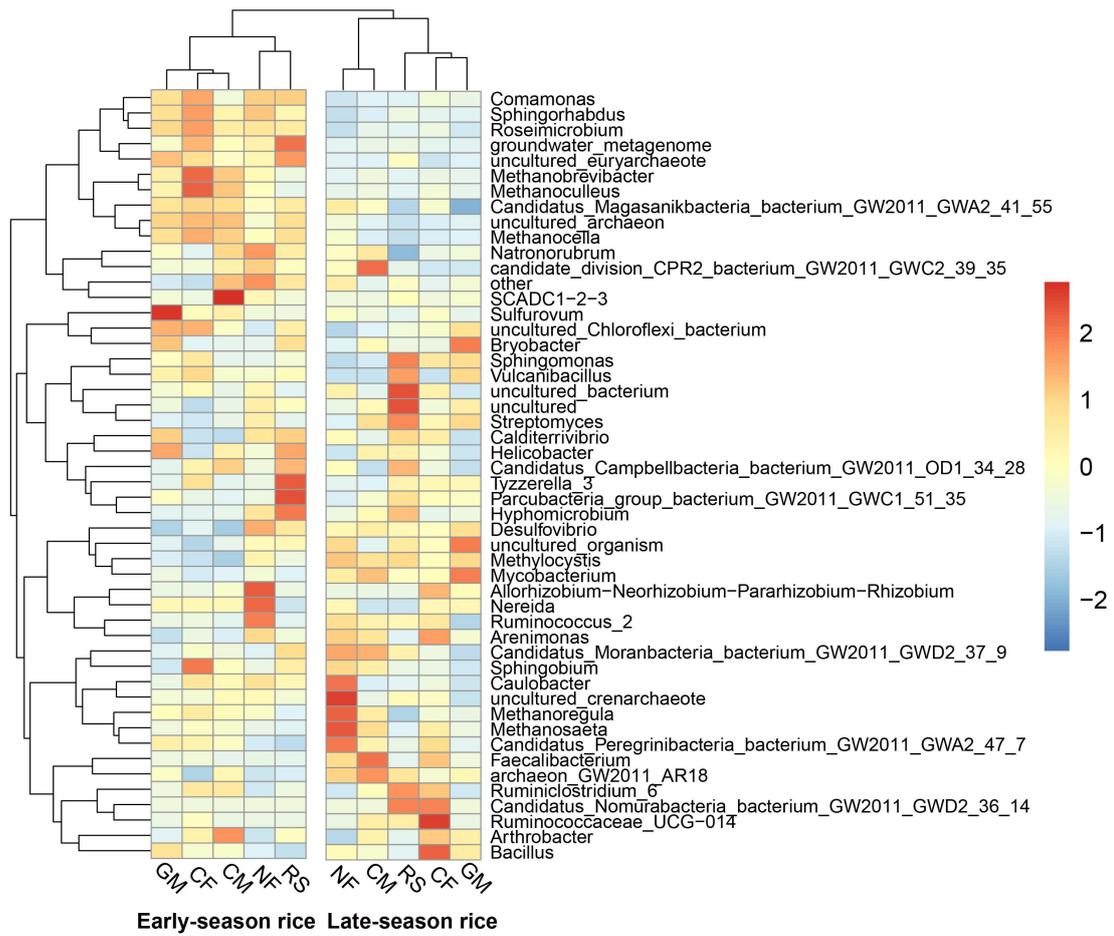


Figure S2

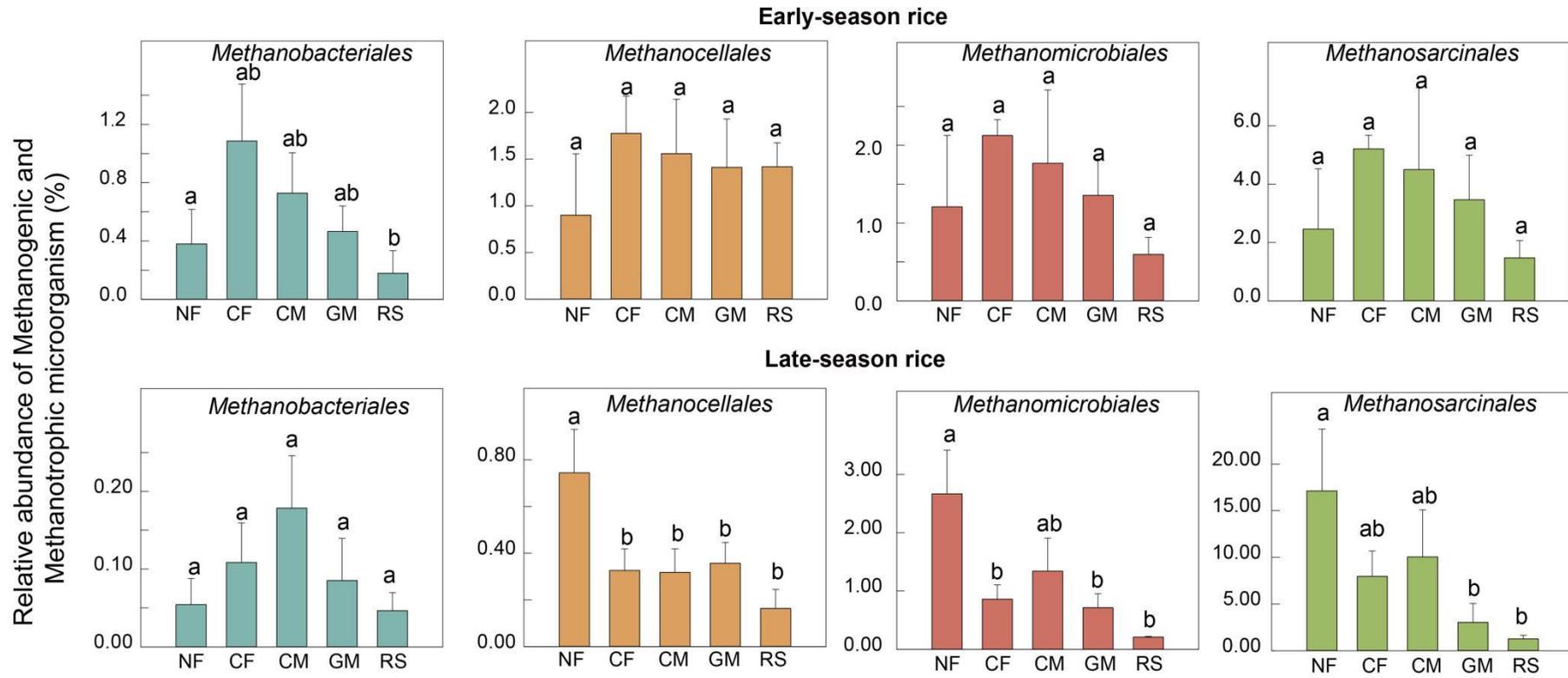


Figure S3

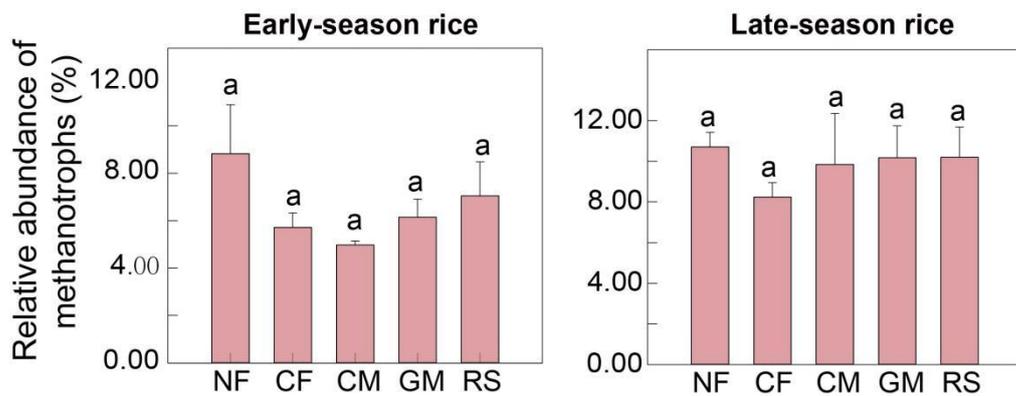


Figure S4

