

## Supplementary Material

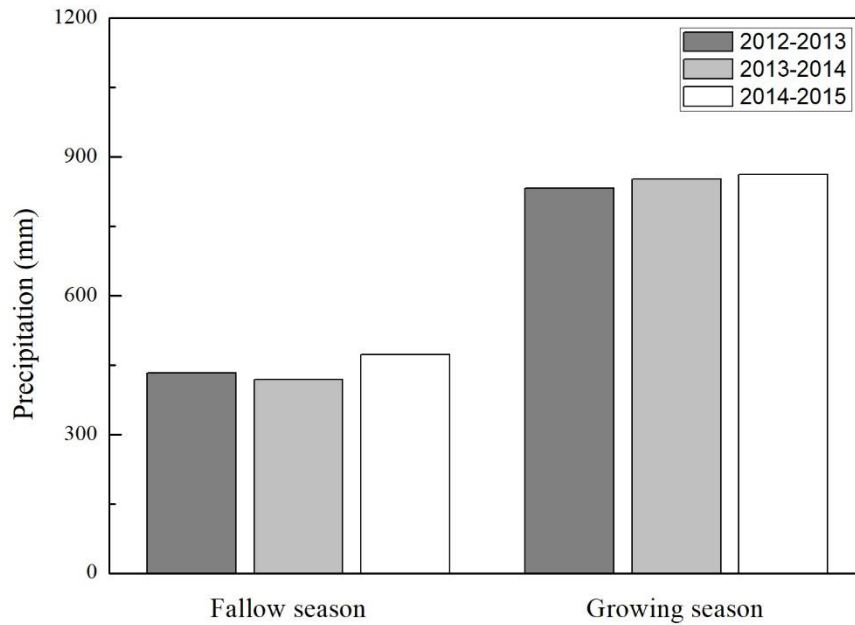


Fig. S1 Cumulative precipitation in fallow season and growing season for three years field experiment.

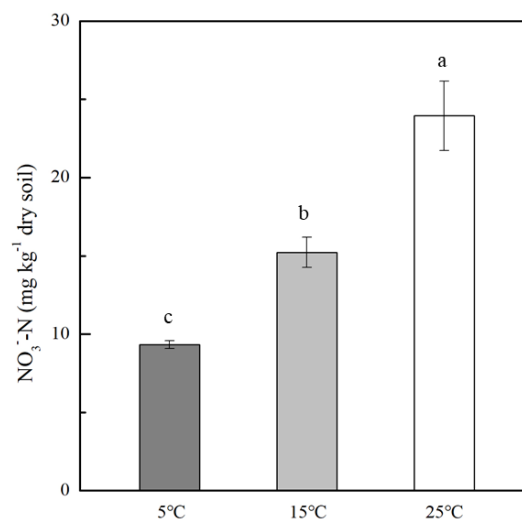


Fig. S2 Soil  $\text{NO}_3^-$ -N contents at the ending of incubation for 5°C, 15°C and 25°C treatments. Value of each bars are mean with standard error. Lowercase letters indicate significant differences between treatments ( $p < 0.05$ ).

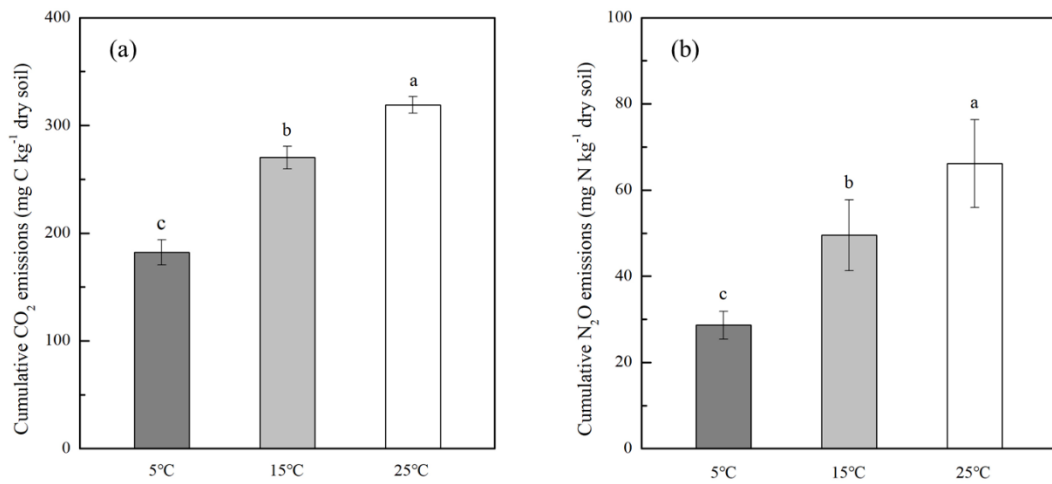


Fig. S3 Cumulative CO<sub>2</sub> (a) and N<sub>2</sub>O (b) emissions during the aerobic incubation for 5 °C, 15 °C and 25 °C treatments. Value of each bars are mean with standard error. Lowercase letters indicate significant differences between treatments ( $p < 0.05$ ).

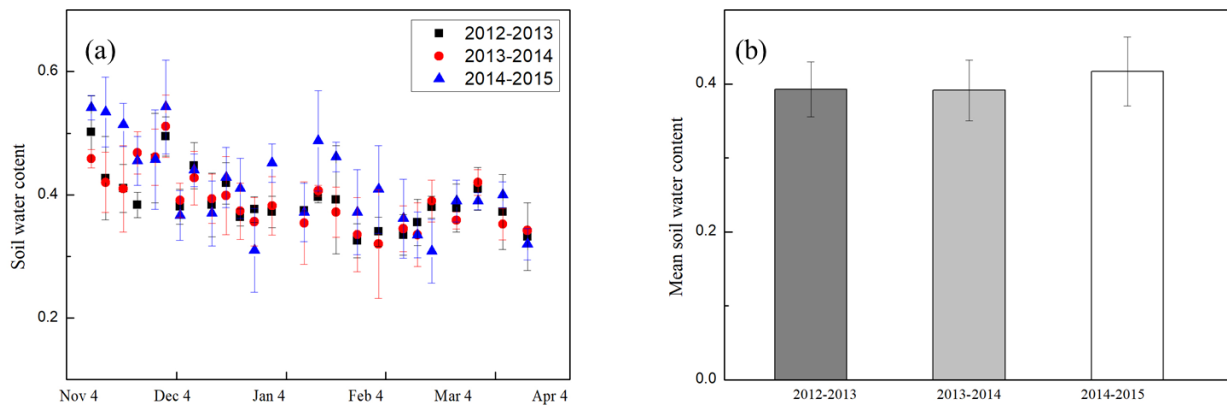


Fig. S4 Temporal dynamics (a) and mean (b) of soil water content in winter season of field experiment for the 2013, 2014 and 2015.