



Fig S1. Sterilization effects on the mineralization of added ¹⁴C-substrate on different soil sites. Values represent means \pm SEM ($n = 3$).

Table S1. Additional chemical characteristics of the irrigation water types. Values represent means \pm SEM ($n = 3$). Different letters indicate significant differences between irrigation water types ($P \leq 0.05$) and no letters shows there are no significant differences. The mixed water is a mixture of groundwater, treated wastewater and farm drainage water.

Water/ Irrigation type	Ground water	Treated wastewater	Mixed
Na (mg/L)	624 \pm 35 ^b	175 \pm 2 ^c	724 \pm 8 ^a
S (mg/L)	187 \pm 8 ^b	98 \pm 6 ^c	306 \pm 21 ^a
Cl (mg/L)	1103 \pm 52 ^b	406 \pm 24 ^c	1755 \pm 85 ^a
K (mg/L)	18 \pm 1 ^b	15 \pm 1 ^b	47 \pm 6 ^a
Ca (mg/L)	185 \pm 12 ^b	99 \pm 4 ^c	270 \pm 19 ^a
Mg (mg/L)	130 \pm 6 ^b	68 \pm 1 ^c	206 \pm 3 ^a
Cr (mg/L)	0.09 \pm 0.01	0.02 \pm 0.01	0.05 \pm 0.02
Fe (mg/L)	0.18 \pm 0.11	0.07 \pm 0.03	0.21 \pm 0.06
Zn (mg/L)	0.24 \pm 0.04 ^a	0.03 \pm 0.01 ^b	0.05 \pm 0.03 ^b