



## Supplementary material

**Table S1.** Primers and qPCR conditions for the determination of fungal and bacterial gene copy numbers.

Primers	qPCR conditions	References
qPCR for total fungi:	15 min at 95 °C, 40 cycles of 30 s at 94 °C, 30 s at 52 °C and 60 s at 72 °C. For melting curve: 15 s at 95 °C, 60 s to 60 °C, 95 °C for 30 s and	F221
Fung5 F and FF390 R	final extension of 15 s at 60 °C.	[33]
qPCR for total bacteria: Ba519 F and Ba907 R	15min at 95 °C, 40 cycles of 30 s at 94 °C, 30 s at 50 °C and 60 s at 72 °C. For melting curve: 15 s at 95 °C, 60 s to 60 °C, 95 °C for 30 s and final extension of 15 s at 60 °C.	[34]

**Table S2.** Effect of treatments on metabarcoding (16S rRNA) diversity. Mean values (n=3)  $\pm$  SD. Probability values from three-way ANOVA (ns: non-significant) for the effects of plant growth, bioaugmentation, amendment and their interactions are shown below. H': Shannon's index; S': Simpson's index; J': Pielou's evenness; rR: rarefied richness. Compost: amended with composted horse manure; Cow slurry: amended with dried cow slurry.

			н'	S'	<b>J</b> '	rR
Brassica	Non-bioaugmented	Control	$6.220\pm0.2$	$0.992 \pm 0.002$	$0.748 \pm 0.02$	3800±160
		Compost	$6.265 \pm 0.2$	$0.990\pm0.003$	$0.745 \pm 0.02$	4129±211
_		Cow slurry	$6.320\pm0.1$	$0.993 \pm 0.002$	$0.763\pm0.01$	3672±117
	Bioaugmented	Control	6.114±0.2	0.992±0.002	0.737±0.02	3562±235
	-	Compost	$6.258\pm0.0$	$0.989 \pm 0.000$	$0.740\pm0.00$	4133±74
		Cow slurry	$6.340\pm0.2$	$0.993 \pm 0.002$	$0.760\pm0.01$	3692±256
Unplanted	Non-bioaugmented	Control	6.165±0.1	0.992±0.002	$0.740\pm0.02$	3799±55
		Compost	$6.220\pm0.2$	$0.990\pm0.004$	$0.741 \pm 0.03$	4011±244
_		Cow slurry	$6.459\pm0.1$	$0.995 \pm 0.000$	$0.777 \pm 0.01$	3874±237
	Bioaugmented	Control	6.303±0.1	$0.992 \pm 0.001$	$0.752 \pm 0.01$	3923±137
		Compost	$6.215\pm0.3$	$0.991 \pm 0.003$	$0.738 \pm 0.02$	$4050\pm270$
		Cow slurry	$6.184\pm0.3$	$0.990\pm0.005$	$0.743\pm0.03$	3762±198
	Plant (P)		ns	ns	ns	ns
	Bioaugmentation (B)		ns	ns	ns	ns
	Amendment (A)		ns	0.007	0.021	0.000
	P x B		ns	ns	ns	ns
	P x A		ns	ns	ns	ns
	BxA		ns	ns	ns	ns
	PxBxA		ns	ns	ns	ns