

Supplementary Information

Title of the manuscript:

Plant microbiome-dependent immune enhancing action of *Echinacea purpurea* is enhanced by soil organic matter content

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Supplementary Table S1. Analysis of community similarity (as assessed based on presence-absence of bacterial OTUs, Jaccard, or relative abundance of OTUs, theta) among the different cultivation conditions tested using ANOSIM. Percent organic matter in soil T1 (67.5%) – T2 (23.2%) – T3 (10.4%) – T4 (5.6%) – T5 (2.5%), soil nitrogen fertilization T1 (200 Kg/h) – T2 (150 Kg/h) – T3 (100 Kg/h) – T4 (50 Kg/h) – T5 (0 Kg/h) and soil moisture field capacity T1 (full field) – T2 (3/4 of field) – T3 (1/2 field).

Plant part	Soil condition	p value		Jaccard Pairwise p value			
		Jaccard	Theta	T1 vs T5	T1 vs T4	T2 vs T5	T2 vs T3
Root	Organic matter	<0.001*	0.051	0.001*	0.007	0.012	-
	Nitrogen	0.098	0.409	-	-	-	-
	Moisture content	0.477	0.333	-	-	-	-
Aerial	Organic matter	<0.001*	0.17	0.003*	0.029	0.007	-
	Nitrogen	0.079	0.834	-	-	-	-
	Moisture content	0.009*	0.787	-	-	-	0.009

* Statistically significant difference among treatments in each condition using an alpha of 0.05.