

# Supplementary material: *Daucus carota* L. Seed Inoculation with a Consortium of Bacteria Improves Plant Growth, Soil Fertility Status and Microbial Community

Marika Pellegrini <sup>1,†</sup>, Giancarlo Pagnani <sup>1,2,†</sup>, Massimiliano Rossi <sup>3,†</sup>, Sara D'Egidio <sup>2</sup>, Maddalena Del Gallo <sup>1,\*</sup> and Cinzia Forni <sup>3</sup>

<sup>1</sup> Department of Life, Health and Environmental Sciences, University of L'Aquila, 67100 L'Aquila, Italy; marika.pellegrini@univaq.it (M.P.); gpagnani@unite.it (G.P.)

<sup>2</sup> Faculty of Bioscience and Technologies for Food, Agriculture and Environment, University of Teramo, 64100 Teramo, Italy; sdegidio@unite.it

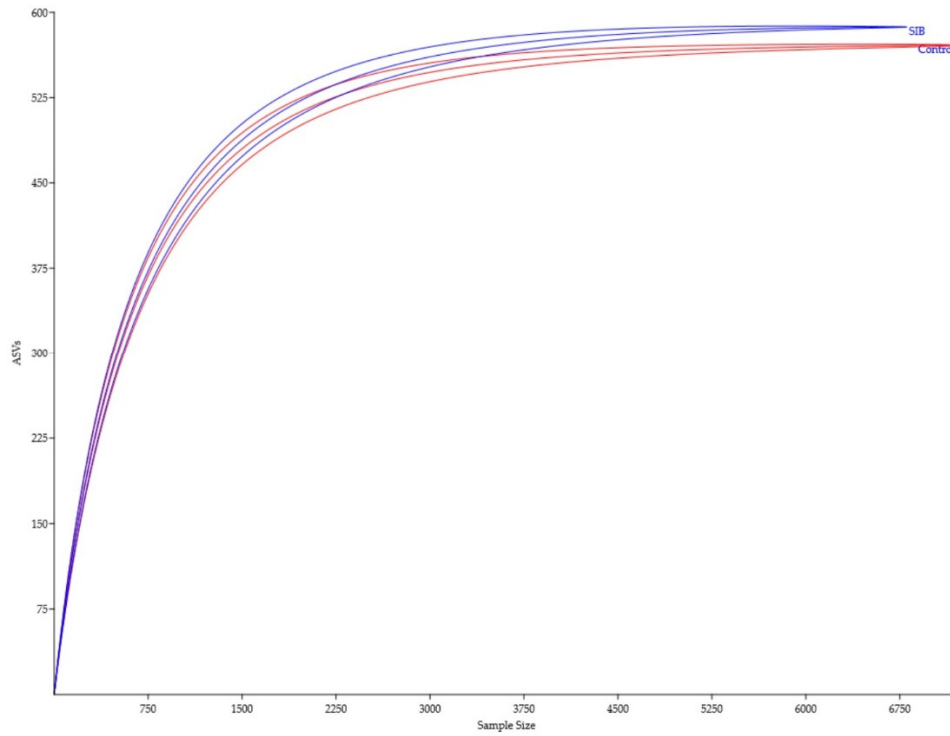
<sup>3</sup> Department of Biology, University of Rome "TorVergata", 00133 Roma, Italy; massimiliano87rossi@gmail.com (M.R.); forni@uniroma2.it (C.F.)

\* Correspondence: maddalena.delgallo@univaq.it

† These authors contributed equally

**Table S1.** Filtered Read Paired-End(PE), raw and post-QualityCheck(QC) amplicons (non-chimeric) obtained for Control and SIB (seed inoculated with bacteria) samples.

Sample	Filtered Read PE	Amplicon	non-chimeric Amplicon
Control	29321	7502	7206
SIB	23829	6944	6486



**Figure S1.** Alpha diversity rarefaction curves of the microbial richness of Control and SIB samples according to their respective Sample Size. Alpha diversity rarefaction curve was obtained by PAST 4.03.

**Table S2.** Distribution of microbial taxa (%) within Control and SIB (seed inoculated with bacteria) soils. Data were processed by excluding the abundances of ASVs < 1%.

Phylum	Class	Order	Family	Genus	Control	SIB
Acidobacteria	Acidobacteriia	Solibacterales	Solibacteraceae (Subgroup 3)	<i>Bryobacter</i>	3.15	2.58
	Blastocatellia (Subgroup 4)	Pyrinomonadales	Pyrinomonadaceae	<i>RB41</i>	1.11	5.59
	Subgroup 6	Unknown	Unknown	Unknown	4.64	3.12
Actinobacteria	Acidimicrobiia	Uncultured	Unknown	Unknown	2.22	-
	Actinobacteria	Micrococcales	Micrococcaceae	<i>Pseudarthrobacter</i>	2.25	2.26
	Actinobacteria	Propionibacteriales	Nocardiodaceae	<i>Marmoricola</i>	2.58	2.72
Bacteroidetes	Bacteroidia	Cytophagales	Hymenobacteraceae	<i>Adhaeribacter</i>	1.95	-
			Pontibacter	2.22	3.19	
		Flavobacteriales	Microscillaceae	Uncultured	2.73	3.01
			Flavobacteriaceae	<i>Flavobacterium</i>	10.75	1.00
			Weeksellaceae	<i>Chryseobacterium</i>	3.83	6.10
			Sphingobacteriales	Sphingobacteriaceae	<i>Sphingobacterium</i>	4.37
Unknown	2.85	1.61				
Chloroflexi	Anaerolineae	Anaerolineales	Anaerolineaceae	Unknown	0.36	3.66
	KD4-96	Unknown	Unknown	Unknown	1.86	2.80
Firmicutes	Bacilli	Bacillales	Bacillaceae	<i>Bacillus</i>	2.07	-
Gemmatimonadetes	Gemmatimonadetes	Gemmatimonadales	Gemmatimonadaceae	<i>Gemmatimonas</i>	3.21	11.87
			Uncultured	13.00	-	
		Unknown	2.82	1.58		
	Longimicrobia	Longimicrobiales	Longimicrobiaceae	Uncultured	2.22	18.32
Nitrospirae	Nitrospira	Nitrospirales	Nitrospiraceae	<i>Nitrospira</i>	2.70	2.65
Proteobacteria	Alphaproteobacteria	Sphingomonadales	Sphingomonadaceae	<i>Sphingomonas</i>	12.07	7.71
			Hydrogenophaga	3.33	5.23	
		Betaproteobacteria	Burkholderiaceae	<i>Massilia</i>	2.58	2.15
			Nitrosomonadaceae	<i>MND1</i>	4.04	3.59
			Xanthomonadales	Xanthomonadaceae	<i>Lysobacter</i>	2.82
<i>Stenotrophomonas</i>	2.31	2.65				