

Silencing of phytopathogen communication by the halotolerant PGPR *Staphylococcus equorum* strain EN21

**Clara Vega^{1,2}, Miguel Rodríguez^{1,2}, Inmaculada Llamas^{1,2*}, Victoria Béjar^{1,2},
Inmaculada Sampedro^{1,2*}**

¹Department of Microbiology, Faculty of Pharmacy, University of Granada, 18071 Granada, Spain.

²Institute of Biotechnology, Biomedical Research Center (CIBM), University of Granada, 18100 Granada, Spain.

***Corresponding authors:**

Inmaculada Sampedro (isampedro@ugr.es) and Inmaculada Llamas (illamas@ugr.es)

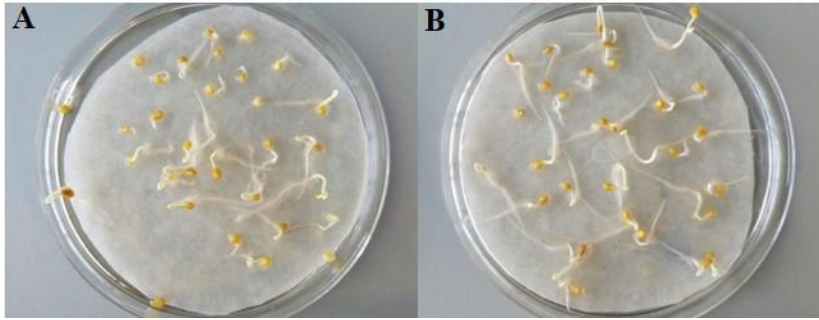


Figure S1. Effect of tomato seed biopriming with *S. equorum* strain EN21. A) Control seeds. B) EN21 bacterized seeds.



Figure S2. Effect of biopriming + inoculation treatment with EN21 strain on tomato plants.

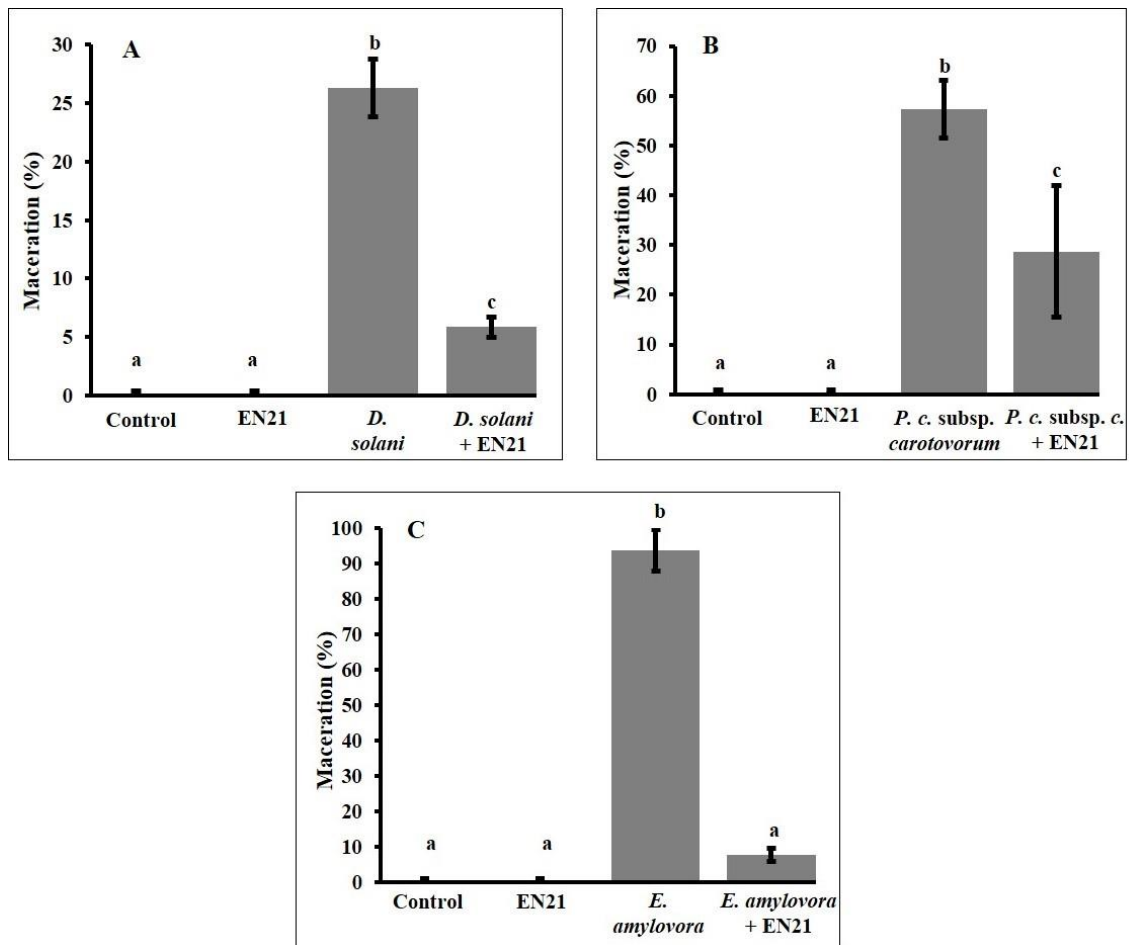


Figure S3. Maceration (%) of potato tubers (A), carrots (B) and pears (C) in *D. solani*, *P. carotovorum* subsp. *carotovorum* and *E. amylovora* mono-cultures, respectively, and in co-culture with EN21. Error bars represent the standard deviation. Letters indicate statistically significant differences ($p \leq 0.05$).

Table S1. Effect of EN21 on enzymatic activities of phytopathogens in co-cultures. (-) no activity, (+) weak activity, (++) moderate activity, (+++) strong activity. ND = not determined.

Phenotype	<i>S. equorum</i>	<i>A. fabrum</i>		<i>D. solani</i>		<i>E. amylovora</i>		<i>P. atrosepticum</i>		<i>P. c. subsp. carotovorum</i>		<i>P. s. pv. syringae</i>		<i>P. s. pv. tomato</i>	
	EN21	Control	+EN21	Control	+EN21	Control	+EN21	Control	+EN21	Control	+EN21	Control	+EN21	Control	+EN21
Amylase	-	-	ND	+	+	-	ND	-	ND	-	ND	++	-	+++	+
Caseinase	-	+	+	++	+	-	ND	-	ND	-	ND	-	ND	+	+
Cellulase	+	-	ND	-	ND	-	ND	-	ND	-	ND	+	+	-	ND
Chitinase	-	-	ND	-	ND	-	ND	-	ND	-	ND	++	+	-	ND
DNase	-	++	++	++	+	-	ND	+++	++	++	++	++	++	+	+
Phosphatase	++	-	ND	+++	++	++	++	-	ND	++	++	++	++	+++	++
Gelatinase	-	+	+	+	+	-	ND	-	ND	+	+	+	-	-	ND
Lecithinase	-	-	ND	+++	++	-	ND	-	ND	++	+	-	ND	+	+
Lipase Tween 20	++	-	ND	++	++	++	++	+++	++	+++	++	++	++	++	++
Lipase Tween 80	-	-	ND	+	+	+	+	+	+	+	+	-	ND	+	+
Surfactants	+	+++	+	+	+	-	ND	-	ND	-	ND	+	+	+	+