

**Table S1-** Main physical and chemical parameters of soil for each study area: Molise, Campania and Sicily.

Parameters	Experimental site		
	MOL (San Biase, CB)	CAM (Galluccio, CE)	SIC (Zafferana Etnea, CT)
pH	8.3	7.1	7.0
EC (dS/m)	0.135	0.047	0.034
Sand (coarse) (g/Kg)	56.4	172.5	439.9
Sand (fine) (g/Kg)	234.2	297.7	478.9
Silt (g/Kg)	195.0	215.9	68.4
Clay (g/Kg)	514.2	313.9	12.7
Organic carbon (g/Kg)	10.8	3.7	25.0
Organic matter (g/Kg)	18.6	6.4	43.2
Nitrogen (g/Kg)	1.3	0.4	2.3
C/N ratio	7.6	7.0	10.7
Assimilable phosphorus (P <sub>2</sub> O <sub>5</sub> ) (mg/Kg)	25.9	42.5	23.9
CSC (meq/ 100g)	31.0	17.4	17.3
Exchangeable Ca (meq/ 100g)	25.7	3.7	9.8
Exchangeable Mg (meq/ 100g)	3.4	1.8	0.7
Exchangeable Na (meq/ 100g)	0.3	0.1	0.1
Exchangeable K (meq/ 100g)	1.4	1.5	0.6
Exchangeable Fe (mg/ Kg)	14.8	49.0	61.5
Exchangeable Cu (mg/ Kg)	17.0	4.5	4.5
Exchangeable Zn (mg/ Kg)	2.6	5.9	0.9
Exchangeable Mn (mg/ Kg)	6.9	56.6	0.5