

Supplementary Materials

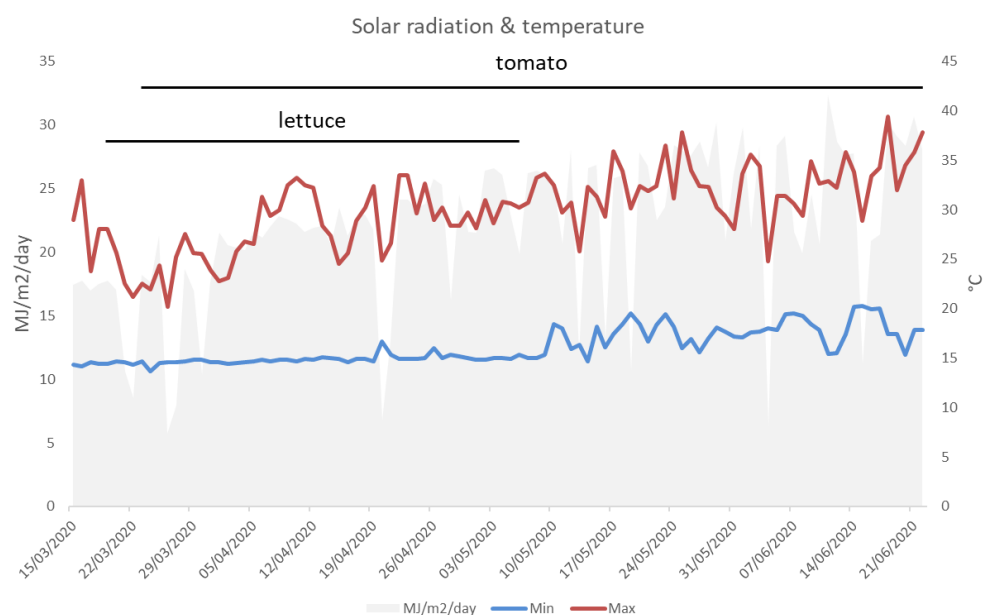


Figure S1: solar radiation and temperature in the greenhouse. The solar radiation monitored near the greenhouse (grey area, expressed in MJ/m²/day) and the maximum (red line) and minimum (blue line) air temperature (°C) in the greenhouse were recorded from mid-March to the third week of June 2020. The duration of lettuce and tomato trials is reported above the graph with black lines.

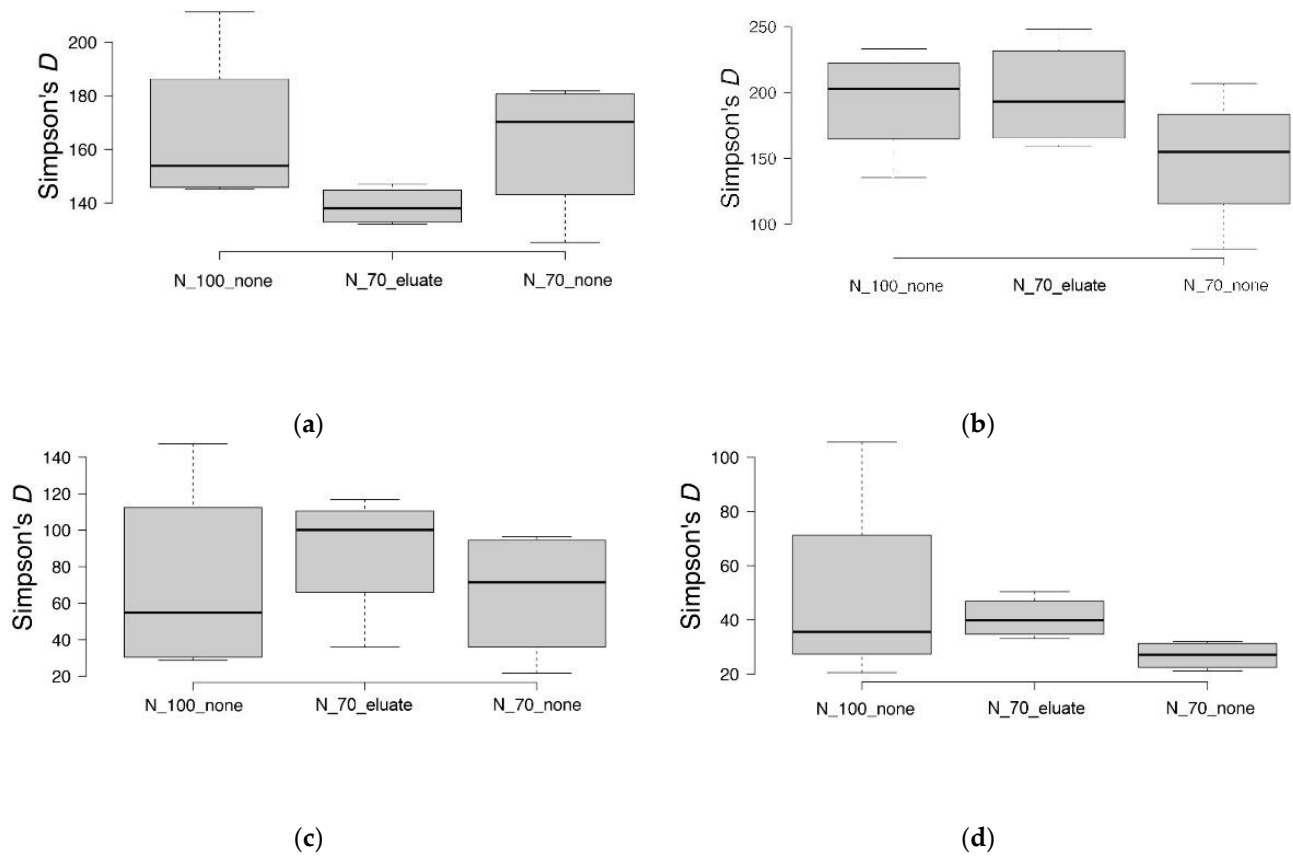
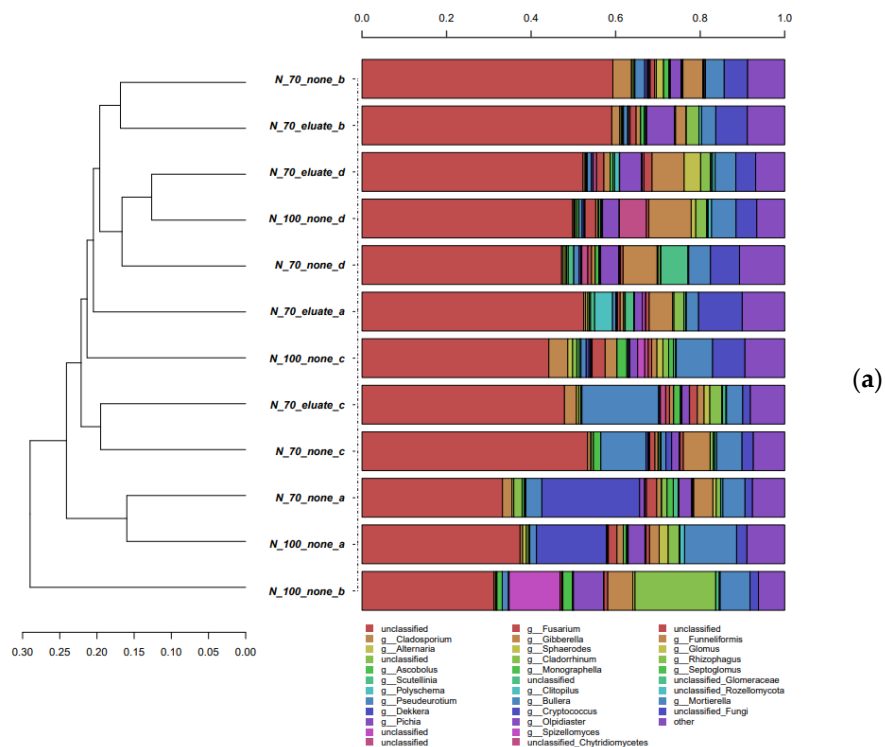


Figure S2: representation of α -diversity and richness of bacterial OTUs in tomato (a) lettuce (b) and fungal OTUs in tomato (c) and lettuce (d).



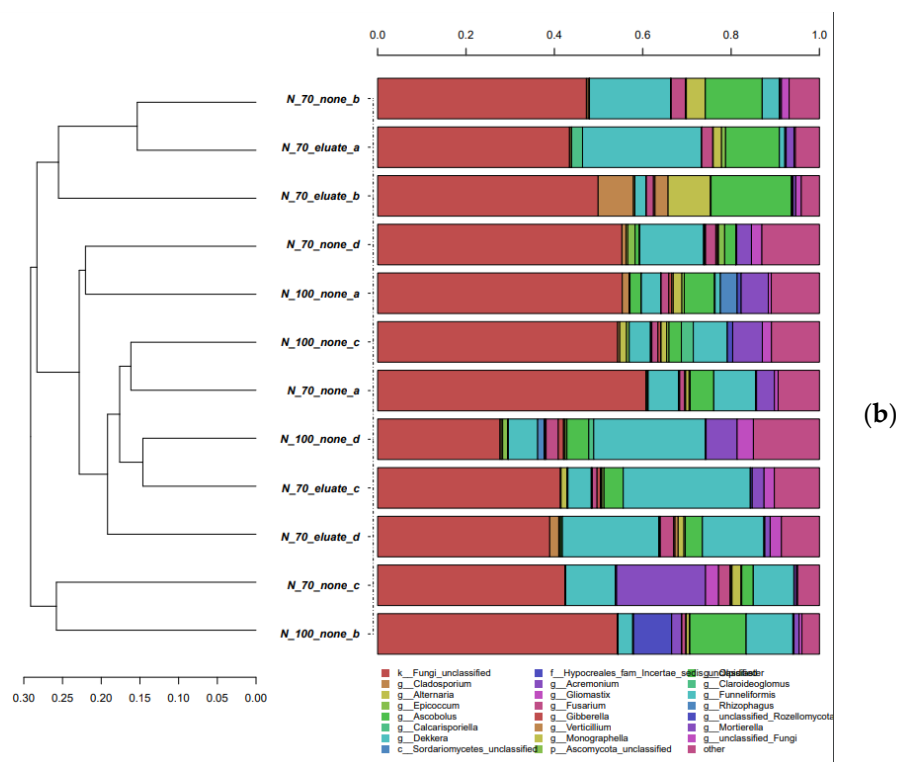


Figure S3. Hierarchical cluster of classified sequences using the average linkage algorithm at family classification level for bacterial taxa contributing at least 5% to a single sample for tomato (a) and lettuce (b). Taxa below the 5% threshold are attributed to the sequence group named “other”.

Table S1: effect of the eluate on plant growth. The bidimensional growth of lettuce plants was assessed 3 times: at T0, 7 days after planting (DAP); at T1, 29 DAP; at T2, 50 DAP. Values \pm s.d. are expressed in sqcm. Different letters differ significantly ($P < 0.05$, Duncan test).

N fert.	T0 DAP	T1 29 DAP	T2 50 DAP
N100%	45.49 (\pm 4.81) a	198.58 (\pm 18.95) ab	333.18 (\pm 27.28) ab
N70%	46.99 (\pm 3.14) a	191.22 (\pm 6.61) b	297.48 (\pm 9.08) b
N70% + N30% from eluate	47.33 (\pm 6.99) a	215.21 (\pm 13.48) a	344.14 (\pm 27.90) a

Table S2: effect of the eluate on plant growth. Average growth values (\pm s.d.) between T0-T1, T1-T2 and T0-T2 indicate that the use of the eluate to substitute 30% N is efficient in restoring and ameliorating plant growth. T0, 7 days after planting (DAP); at T1, 29 DAP; at T2, 50 DAP. Values \pm s.d. are expressed in sqcm. Different letters differ significantly ($P < 0.05$, Duncan test).

N fert.	T0-T1	T1-T2	T0-T2
N100%	153.09 (\pm 19.07) a	134.60 (\pm 38.34) a	287.69 (\pm 23.39) ab
N70%	144.23 (\pm 9.38) a	106.26 (\pm 14.79) a	250.49 (\pm 8.23) b
N70% + N30% from eluate	167.88 (\pm 20.16) a	128.93 (\pm 21.78) a	296.80 (\pm 31.07) a

Table S3 ripe and unripe tomato fruit number and weight. Ripe fruits were harvested 2 times, and unripe tomatoes were harvested at the end of the trial. Values \pm s.d. are expressed in g. Different letters differ significantly ($P < 0.05$, Duncan test).

N fert.	Ripe 1° harvest	Ripe 2° harvest	Total ripe	unripe	Total number
Fruit number					
N100%	10.50 (\pm 1.79) a	28.69 (\pm 2.66) a	39.19 (\pm 2.90) a	27.31 (\pm 6.00) b	66.50 (\pm 5.86) b
N70%	12.15 (\pm 1.44) a	29.35 (\pm 2.20) a	41.50 (\pm 2.76) a	24.63 (\pm 4.14) b	66.13 (\pm 3.37) b
N70% + N30% from eluate	9.31 (\pm 1.89) a	30.75 (\pm 3.54) a	40.06 (\pm 3.89) a	38.75 (\pm 6.41) a	78.81 (\pm 4.30) a
Fruit weight (g)					
N100%	101.93 (\pm 16.46) ab	249.86 (\pm 13.64) a	351.79 (\pm 13.54) a	118.46 (\pm 29.07) ab	
N70%	121.73 (\pm 12.01) a	255.29 (\pm 8.77) a	377.01 (\pm 17.05) a	76.71 (\pm 24.48) b	
N70% + N30% from eluate	87.02 (\pm 12.39) a	274.65 (\pm 35.48) a	361.67 (\pm 26.06) a	163.29 (\pm 44.74) a	