Table 1 Mantel test results show the correlation between bacterial community structures and soil variables.

Variable [a]	*R*	*p*
pH	**0.441**	0.001
TP	**0.364**	0.002
AP	**0.253**	0.005
NO_3^--N	**0.216**	0.028
C:N	**0.189**	0.038
H_2O%	0.173	0.051
AK	0.169	0.063
TN	0.163	0.064
AN	0.133	0.093
NH_4^+-N	-0.106	0.167
TK	-0.059	0.532
TC	0.010	0.433

[a] TC, TN, TP and TK indicate soil total carbon, nitrogen, phosphorus and potassium, respectively; AN, AP and AK indicate soil available nitrogen, phosphorus and potassium, respectively; NH_4^+-N, ammonium nitrogen, NO_3^--N, nitrate nitrogen. Values in bold indicate significant correlation ($P < 0.05$).

Table 2 Topological properties of the Molecular Ecological Networks (MENs) of bacterial communities in less (L10) and more than 10 years (M10) of continuous cropped alfalfa, and their associated with random pMENs.

Treatments	M10	L10
Empirical networks		
No. of original OTUs	670	670
Similarity threshold(S_t)	0.91	0.91
Network size [a] (n)	633	670
Links	741	787
Avg. connectivity(*avgK*)	2.24 [c]	2.50 [c]
Avg. geodesic distance (GD)	9.14 [c]	8.85 [c]
Avg. clustering coefficient (*avgCC*)	0.14 [c]	0.17 [c]
Modularity (M)	0.87	0.88
R^2 of power-law	0.81	0.91
Random networks [b]	7.210±0.167	6.923±0.147
Avg. geodesic distance (GD)±SD	0.003±0.002	0.004±0.003
Avg clustering coefficient (*avgCC*)±SD	0.569±0.007	0.569±0.005
Modularity (M)±SD		

[a] Number of OTUs (e.g. nodes) in a network

[b] Random networks generated by rewiring of the links of a MEN into identical numbers of nodes and links to their corresponding empirical MEN.

[C] Significant difference ($P < 0.001$) between M10 and L10 bacterial networks