

Table S2. Soil physicochemical characteristics at two elevational sites of the Puna

Characteristics	Site	Abra del Cóndor (AC)	Iturbe (It)
Elevation (m)		3,870	3,370
Soil classification ¹		Entisol (torrientente lithic)	Aridisol (typical paleargid)
Texture		Gravel sandy	Sand silt gravel
pH		5.90± 0.03	6.80± 0.04
EC (mS/cm)		0.33 ± 0.01	0.33 ± 0.01
OM (%)		1.00 ± 0.30	1.00 ± 0.30
Cox.(%)		0.64± 0.02	0.50± 0.02
ON (g/Kg)		1.70 ± 0.10	0.60 ± 0.02
P ² (ppm)		13.18± 0.86	34.30 ± 0.66
Ca ²⁺ (cmol _c /Kg)		4.57 ± 0.28	3.36 ± 0.04
Mg ²⁺ (cmol _c /Kg)		1.31 ± 0.11	0.69 ± 0.02
Na ⁺ (cmol _c /Kg)		0.43 ± 0.06	0.37 ± 0.03
K ⁺ (cmol _c /Kg)		0.95 ± 0.02	0.55 ± 0.02

¹[26]. CEC cation exchange capacity, EC electrical conductivity, OM organic matter, Cox. oxidable carbon, ON organic nitrogen, P² available soil phosphorus by Bray-Kurtz method [32]