

## S2 Appendix. Soil characteristics at the study sites.\*

Soil Characteristic	North Field	South Field**
pH	7.2 ± 0.2	7.4 ± 0.04
EC <sub>1:2</sub> (dS m <sup>-1</sup> )***	0.39 ± 0.11	0.12 ± 0.01
C (%)	1.34 ± 0.11	0.48 ± 0.02
N (%)	0.15 ± 0.01	0.05 ± 0.002
δ <sup>15</sup> N (‰)	5.1 ± 0.1	5.5 ± 0.1
C:N	8.8 ± 0.1	9.3 ± 0.1
Nitrification potential rate (mg N kg <sup>-1</sup> d <sup>-1</sup> )	13.6	1.8 ± 0.5
P (mg P kg <sup>-1</sup> )	129.3 ± 18.6	64.7 ± 2.8
Ca (mg Ca kg <sup>-1</sup> )	2645.2 ± 158.0	1523.1 ± 43.9
Mg (mg Mg kg <sup>-1</sup> )	474.1 ± 41.5	252.7 ± 8.5
K (mg K kg <sup>-1</sup> )	522.3 ± 68.4	296.0 ± 15.1
Na (mg Na kg <sup>-1</sup> )	129.7 ± 14.8	78.3 ± 3.3
ESP (%)***	5.4 ± 0.5	5.8 ± 0.2
SAR***	0.2 ± 0.02	0.2 ± 0.01
Sand (%)	53.9 ± 2.2	78.8 ± 0.9
Silt (%)	29.3 ± 1.8	15.9 ± 0.8
Clay (%)	16.8 ± 1.8	5.4 ± 0.2
Soil texture	Sandy loam	Loamy fine sand

Mean ± SE ( $n=3$  for the North Field and  $n=28$  for the South Field for all values, except potential nitrification rate where  $n=1$  (composite of three subsamples) for the North Field and  $n=14$  for the South Field.)

\* Methods described in detail in Dunham-Cheatham SM, Freund SM, Uselman SM, Leger EA, Sullivan BW. Persistent agricultural legacy influences plant restoration success in a native salt desert shrubland. *Agriculture, Ecosystems, and Environment (In Review)*.

\*\* South Field data from Dunham-Cheatham et al. (*In Review*).

\*\*\* Abbreviations: EC = Electrical conductivity; ESP = Exchangeable sodium percentage; SAR = Sodium adsorption ratio.