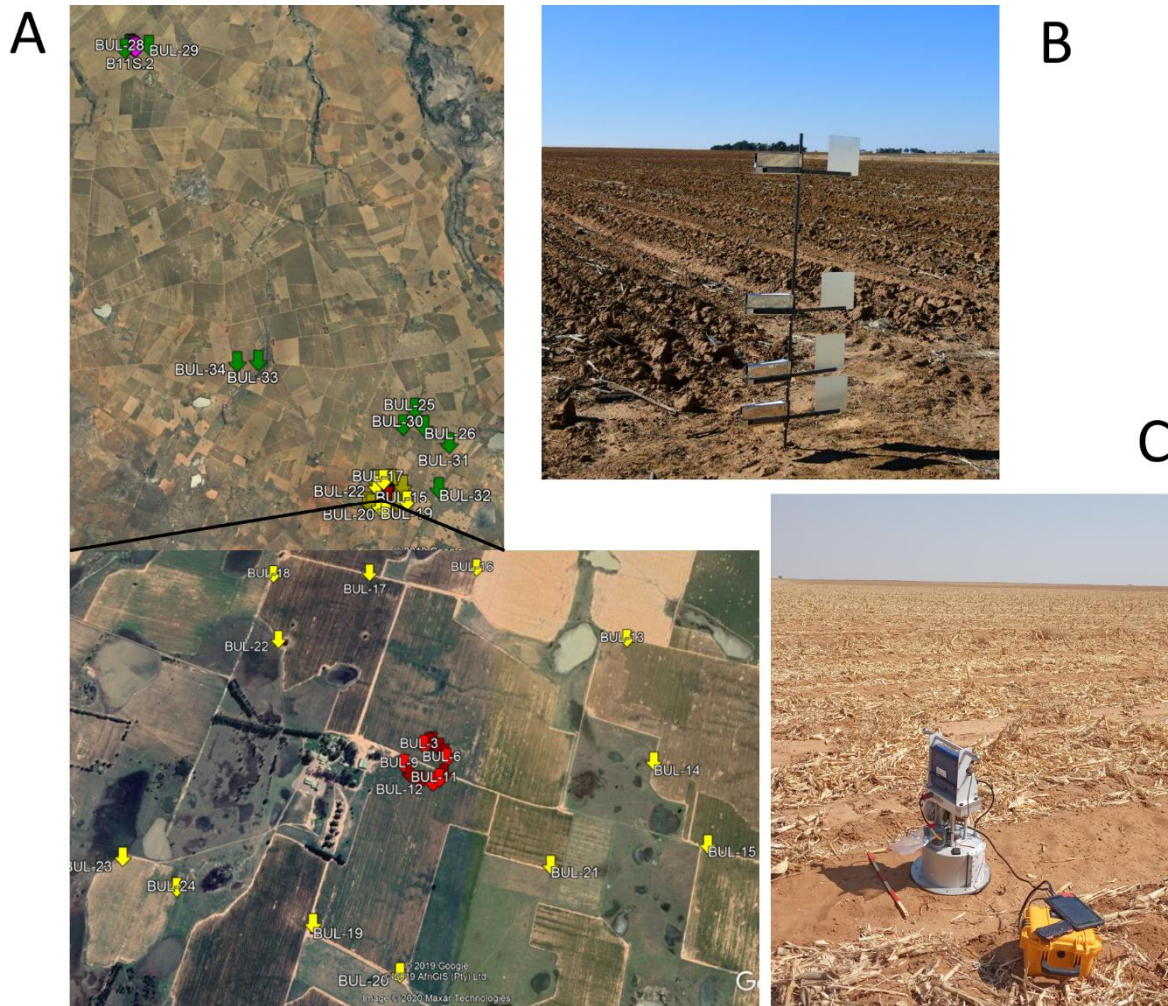# SUPPLEMENTARY DATA

Figure 1S. A) Area of the study and location of the samples around a 30 km radius. B) Dust-trap used to collect dust from the air. C) PI-SWERL dust collector operating during field-work.
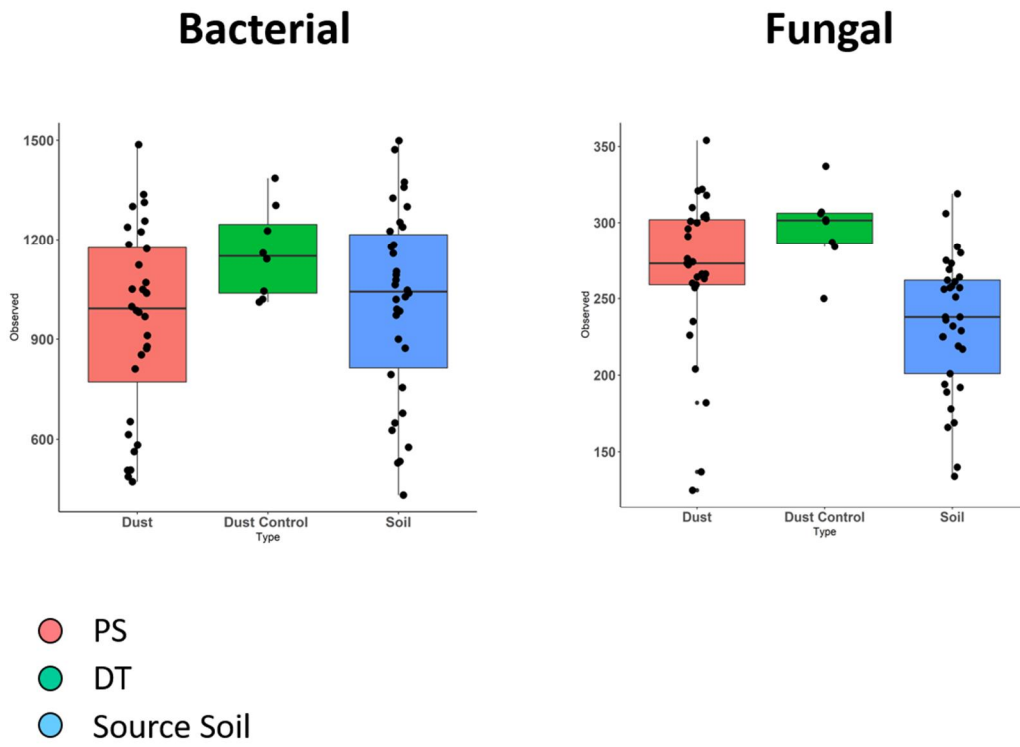
Figure 2S

Figure 2S. Bacterial and Fungal taxonomic richness in PS, DT and source soil samples. The richness is expressed as number of unique species per sample group.
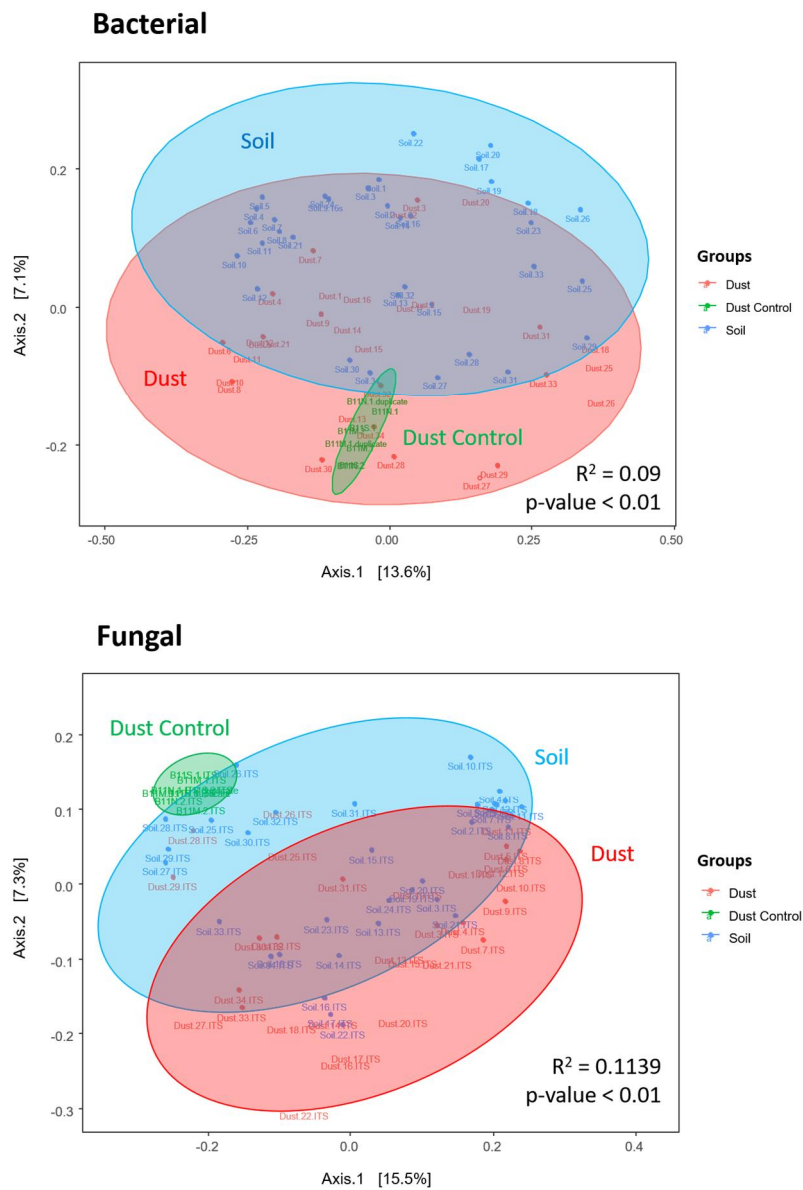
Figure 3S

Figure 3S. PCoA plots of the beta-diversity dissimilarities of bacterial and fungal communities, grouped according to type of sample (Dust Control vs Dust vs Soil). Groups are highlighted with ellipses using the following color-code: Dust Control – Green; Dust – Red; Soil – Blue.
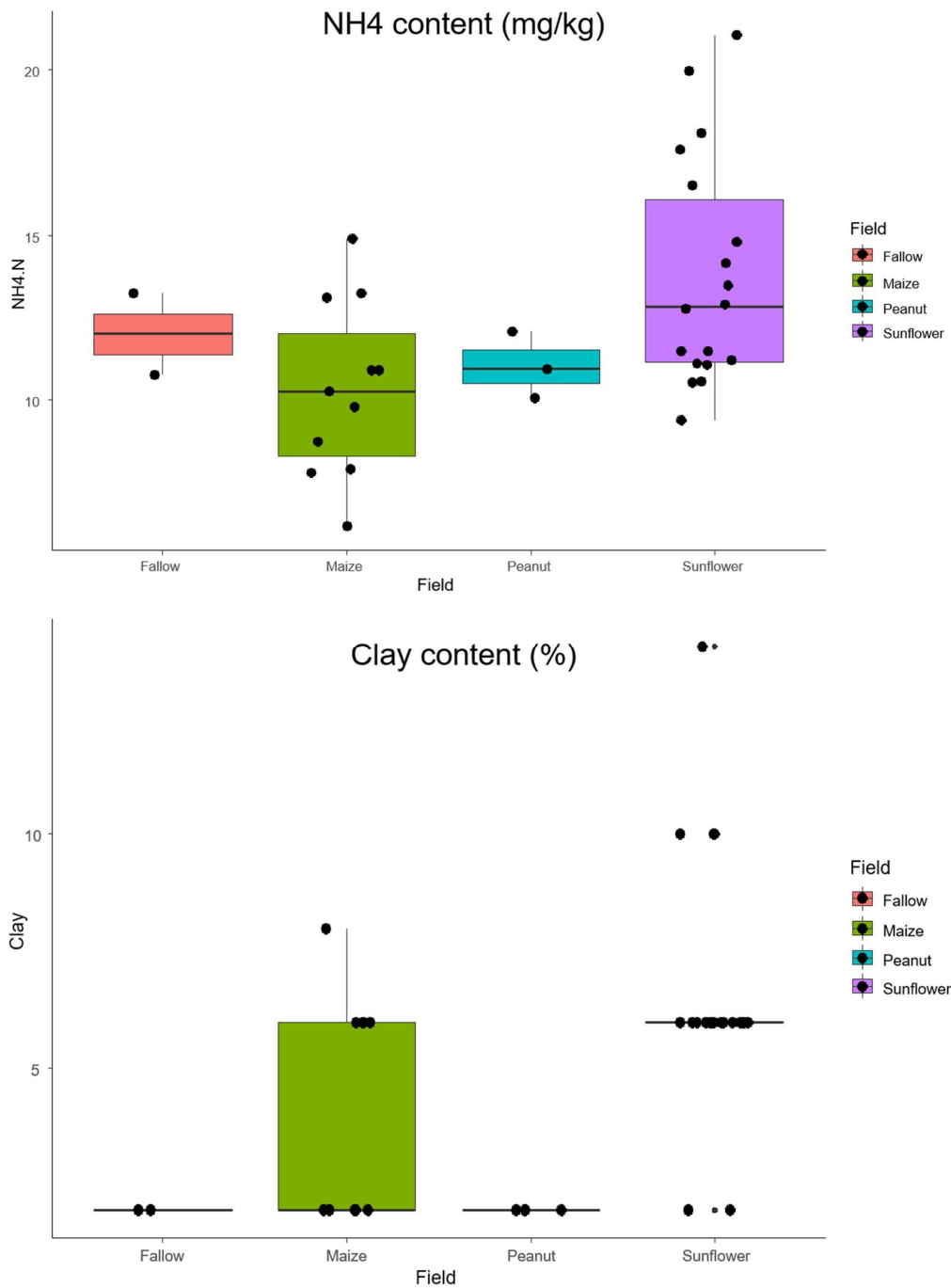
Figure 4S. Barplots showing the significant (p-value < 0.01) variation in ammonia (NH4.N) and clay content between the different filed types. In both cases, samples from sunflower fields exhibited higher concentrations than other field types.