

S5 Table. Wilcoxon tests for the differences in abundances of phyla (Only the 14 most abundant phyla were tested).

| Phylum | Control | Maize | P-value |
|------------------|---------------|---------------|--------------|
| Proteobacteria | 0.3607±0.0190 | 0.3730±0.0125 | 0.421 |
| Acidobacteria | 0.2324±0.0101 | 0.2057±0.0591 | 0.222 |
| Actinobacteria | 0.1366±0.0324 | 0.1392±0.0724 | 0.548 |
| Bacteroidetes | 0.0474±0.0084 | 0.0601±0.0105 | 0.055 |
| Chloroflexi | 0.0524±0.0004 | 0.0401±0.0048 | 0.095 |
| Planctomycetes | 0.0470±0.0025 | 0.0438±0.0146 | 0.151 |
| Verrucomicrobia | 0.0266±0.0057 | 0.0367±0.0095 | 0.008 |
| Gemmatimonadetes | 0.0359±0.0042 | 0.0240±0.0128 | 0.032 |
| Nitrospirae | 0.0112±0.0033 | 0.0065±0.0040 | 0.095 |
| Cyanobacteria | 0.0078±0.0099 | 0.0086±0.0082 | 0.548 |
| Thaumarchaeota | 0.0079±0.0021 | 0.0082±0.0035 | 1.000 |
| Firmicutes | 0.0047±0.0019 | 0.0030±0.0019 | 0.310 |
| WS3 | 0.0036±0.0041 | 0.0027±0.0005 | 0.548 |
| Armatimonadetes | 0.0032±0.0012 | 0.0037±0.0004 | 0.421 |

Note: Values are medians ± inter quartile ranges. Highlighted p-values are considered significant at the 95% confidence level.