

Supplementary Materials

Figures

Figure S1. Composition of the bacterial community. A; Community heatmap at the genus level, B; Circos plot of bacterial phyla. LZ, HY2, HY6, HW2, HW6, HH, HB, HS, and LH; continuous cropping of *C. chinensis* for 5 years, maize continuous cropping for 2 years, maize continuous cropping for 6 years, *P. multiflorum* continuous cropping for 2 years, *P. multiflorum* continuous cropping for 6 years, sweet potato continuous cropping for 2 years, *F. thunbergia* continuous cropping for 2 years, cabbage continuous cropping for 2 years, fallow field, respectively.

Figure S2. Rarefaction curve of the bacterial community. LZ, HY2, HY6, HW2, HW6, HH, HB, HS, and LH; continuous cropping of *C. chinensis* for 5 years, maize continuous cropping for 2 years, maize continuous cropping for 6 years, *P. multiflorum* continuous cropping for 2 years, *P. multiflorum* continuous cropping for 6 years, sweet potato continuous cropping for 2 years, *F. thunbergia* continuous cropping for 2 years, cabbage continuous cropping for 2 years, fallow field, respectively.

Figure S3. Hierarchical clustering analysis. LZ, HY2, HY6, HW2, HW6, HH, HB, HS, and LH; continuous cropping of *C. chinensis* for 5 years, maize continuous cropping for 2 years, maize continuous cropping for 6 years, *P. multiflorum* continuous cropping for 2 years, *P. multiflorum* continuous cropping for 6 years, sweet potato continuous cropping for 2 years, *F. thunbergia* continuous cropping for 2 years, cabbage continuous cropping for 2 years, fallow field, respectively.

Tables

Table S1. Redundancy analysis of soil physicochemical properties and bacterial phyla.

Table S2. Redundancy analysis of soil enzyme activities and bacterial phyla.

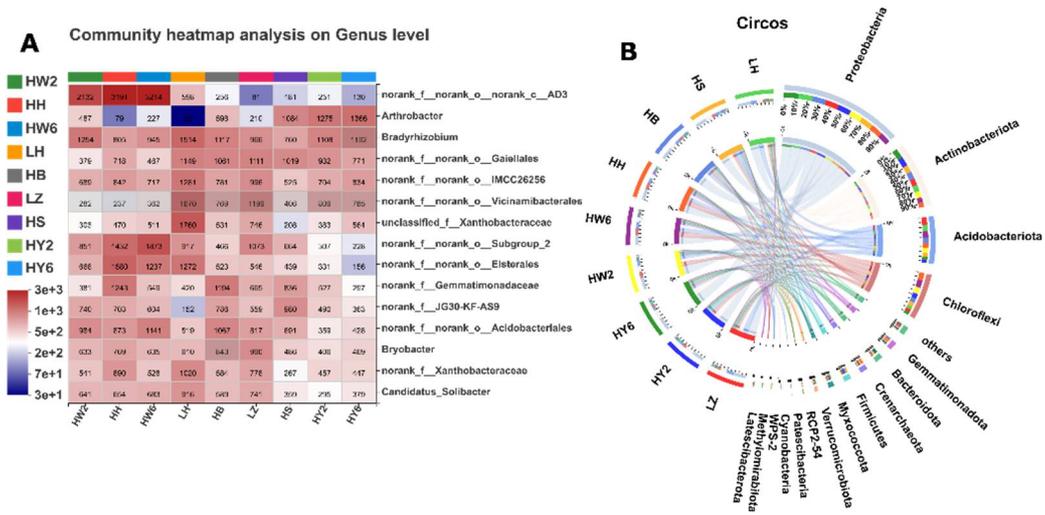


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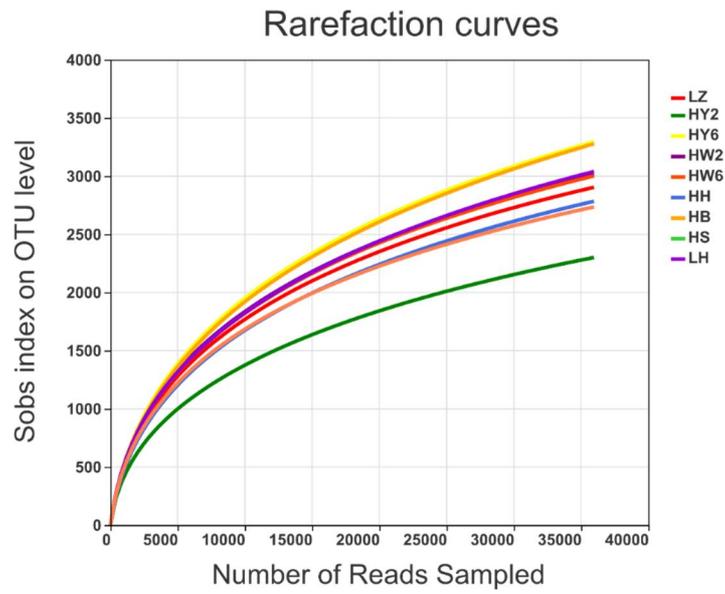


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Hierarchical clustering tree on OTU level

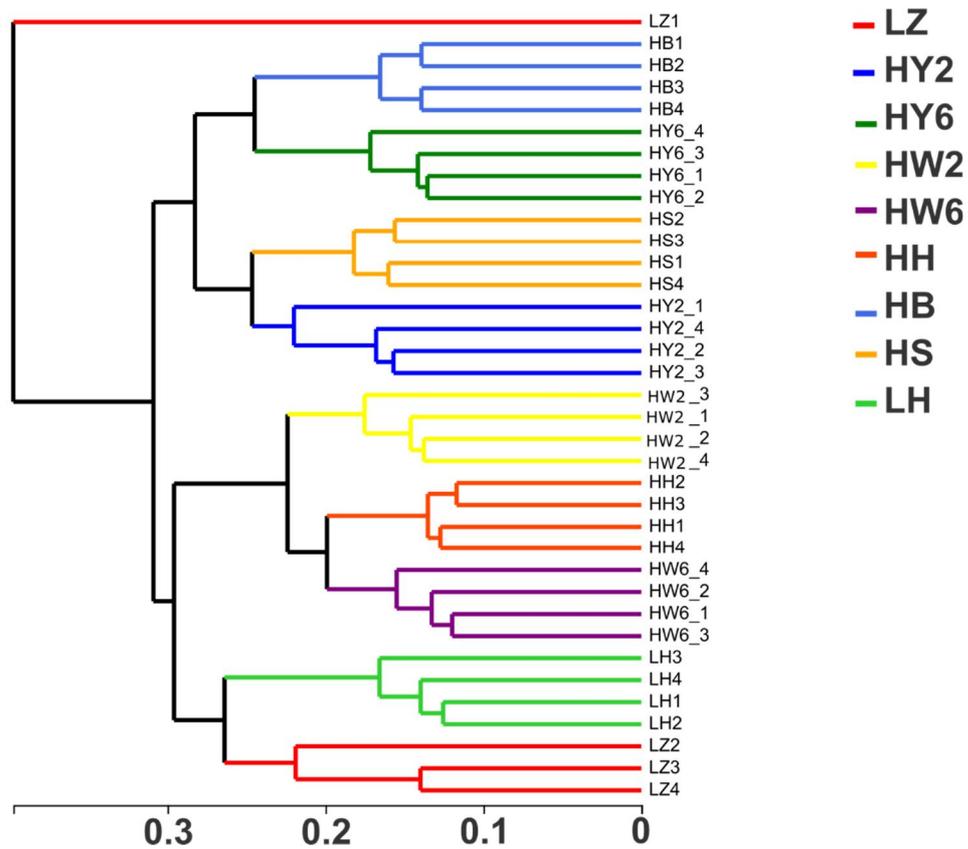


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Table S1. Redundancy analysis of soil physicochemical properties and bacterial phyla.

| Physicochemical Properties | RDA1 | RDA2 | r² | p-Value |
|-----------------------------------|-------------|-------------|----------------------|----------------|
| TP | 0.2855 | -0.9584 | 0.3006 | 0.002 |
| TN | -0.3506 | -0.9365 | 0.3215 | 0.003 |
| AP | 0.1757 | -0.9844 | 0.2317 | 0.011 |
| AK | 0.7948 | -0.6069 | 0.2242 | 0.018 |
| AN | -0.2876 | -0.9577 | 0.1829 | 0.024 |
| OM | -0.6083 | -0.7937 | 0.1204 | 0.109 |
| pH | 0.8636 | -0.5042 | 0.0797 | 0.219 |
| TK | 0.3774 | -0.9261 | 0.0544 | 0.346 |

TP; total phosphorus, TN; total content of nitrogen, TK; total content of potassium, AP; available phosphorus, AN; available nitrogen, AK; available potassium, OM; organic matter.

Table S2. Redundancy analysis of soil enzyme activities and bacterial phyla.

| Soil Enzyme Activities | RDA1 | RDA2 | r² | p-Value |
|-------------------------------|-------------|-------------|----------------------|----------------|
| URE | -0.872 | -0.4896 | 0.4783 | 0.001 |
| PHO | -0.9177 | 0.3972 | 0.4763 | 0.001 |
| INV | -0.9974 | 0.0727 | 0.262 | 0.005 |

URE; soil urease activity, PHO; phosphatase activity, INV: sucrose activity.