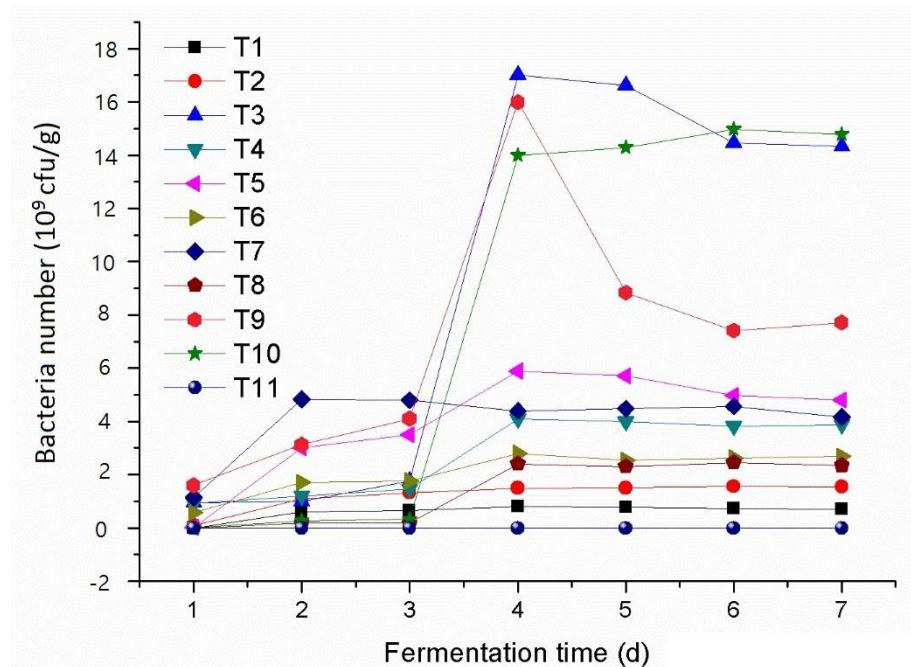


## Supplementary Materials



**Figure S1.** The changes in bacteria number with different fermentation formulas.

**Table S1.** ADONIS analysis using Bray–Curtis distance between PBB treatment and the control.

| Community | Df   | Sums of Sq     | Mean Sq        | F. Model | R <sup>2</sup> | Pr (>F) |
|-----------|------|----------------|----------------|----------|----------------|---------|
| Fungi     | 1(6) | 0.6440(0.4011) | 0.6440(0.0667) | 9.633    | 0.6162(0.3838) | 0.03    |
| Bacteria  | 1(6) | 0.3777(0.2032) | 0.3777(0.0334) | 11.153   | 0.6502(0.3498) | 0.031   |

**Table S2.** Partial Mantel test for whole OTUs of soil microbe versus environmental factors.

| Soil Factor | Fungal Community |        | Bacterial Community |        |
|-------------|------------------|--------|---------------------|--------|
|             | R <sup>2</sup>   | P      | R <sup>2</sup>      | P      |
| EC          | 0.9937           | 0.0110 | 0.9811              | 0.0175 |
| pH          | 0.1167           | 0.8740 | 0.1699              | 0.6227 |
| OC          | 0.9719           | 0.0285 | 0.9675              | 0.0195 |
| AN          | 0.9872           | 0.0225 | 0.9837              | 0.0070 |
| AK          | 0.9939           | 0.0080 | 0.9833              | 0.0055 |