**Table S5.** Compare the abundance of each cycling pathway among different continuous cropping years by Z-value analysis.

|  |  |  |  |
| --- | --- | --- | --- |
| 　 | Items | F value | *P* value |
| Z-value (unitless) | C-degradation | 9.25 | 0.007\* |
| C-fixation | 1.896 | 0.206 |
| P-cycling | 5.351 | 0.029\* |
| N-cycling | 1.128 | 0.366 |
| S-cycling | 0.89 | 0.444 |

*P* ＜0.05 considered significant.