**Graphic for manuscript**

**Title:** **Suppression of** **banana *Fusarium* wilt disease with soil microbial mechanisms via pineapple rotation and residue amendment**

1. In order to banana healthy plant (III), Two systems (banana-pineapple crop rotation and residue amendment (II)) were planted/added into a banana orchard soil with high incidence of Fusarium wilt of banana (I).   
2. The soil samples were assessed for physical and chemical properties, culturable microorganisms and high-throughput sequence.

3. We recruited the beneficial microorganisms *Burkholderia* and *Talaromyces* in crop rotation, and *Aspergillus* in residue amendment have significant negative relationship to disease incidence, which plays a key role in Fusarium reduction.

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